CHAPTER 4 - FOREST MANAGEMENT DIRECTION

This chapter - Forest Management Direction - is the heart of the Plan. It has five major sections.

Part A includes the Forest Management Goals: multiple use and other goals established in the planning process and used to develop this Plan.

Part B, Desired Future Condition: this narrative is a brief description of what the Mt. Baker-Snoqualmie National Forest should look like at the end of ten years, and - if the Plan were to remain unchanged - for fifty years.

Part C, Forest Management Objectives: this section includes the levels of goods and services, outputs and activities, and necessary budget which are anticipated as this Plan is fully implemented. Included is a narrative Resource Summary of how each resource and its activities will be managed under the Plan.

Part C includes the Forest-wide Standards and Guidelines, which direct all resource management activities and uses on the Forest. The Forest-wide standards and guidelines generally apply to all areas of the Forest, (unless exceptions are noted in specific Management Area prescriptions. The Forest-wide standards and guidelines provide standards for performance, and establish bounds and constraints for these activities and uses.

Part E, Management Area Prescriptions: the prescriptions identify the management activities that can occur within each management area and the standards and guidelines that apply to each.

A. FOREST MANAGEMENT GOALS

Forest-wide management goals describe the state or condition of Forest resources and uses that the Plan is designed to achieve. Management objectives and standards and guidelines are then developed to guide the achievement of these goals.

The following factors aided in developing management goals:

- Capability, availability, and suitability of the Forest to produce goods and services
- Applicable Laws and Regulations
- National and Regional Goals
- Public Issues and Management Concerns

Goals

Recreation

1. Provide a broad spectrum of recreation opportunities, with an emphasis on those opportunities which require a natural setting.

2. The forest will be responsive to a greater diversity of forest customers by emphasizing the needs of the very young and old, the disabled, and those of culturally and economically diverse background.

3. Become more knowledgeable of the forest's customer. Embark on market research techniques to assure that recreation facilities, opportunities and services focus on the needs of our customers.

4. Encourage a sense of ownership through expanded Interpretation and Education activities; emphasize traditional values of "conservation", and market the "special places", special activities and special opportunities of the MBS.

5. Provide a full spectrum of recreation facilities (from full service resorts to trailheads) to serve all of the recreation users, providing amenities (hot water, showers, trailer dumps) where necessary and appropriate, that allow the recreating customer to enjoy the natural setting while creating a sense of quality, comfort and security.

6. Encourage partnerships of public and private suppliers of recreation services and facilities and administer the partnerships to ensure and enduring relationship of mutual gain.

7. Recreation is a co-equal partner in Multiple Use Management that is guided by the need to Regain Public Trust through Quality Management. This needs do serve as a tool to minimize conflicts between users and resources.

8. Professional recreation management flows from a work force with a full spectrum of career opportunities dedicated to the traditional values of conservation, demonstrating exceptional skills, providing quality service, and projecting a favorable image of the Forest Service.

Wilderness

1. Manage wilderness for the use and enjoyment of people in such a manner as will leave wilderness values unimpaired for future.

2. Wilderness is to be managed to prevent degradation. The non-degradation principle seeks to maintain each wilderness in at least as wild a condition as it was at the time of classification.

3. Provide for the protection of the area, preservation of its wilderness character through dissemination of information regarding proper use.

4. Manage wilderness using strategies that will facilitate natural ecosystems and processes, including prescribed burning.

Wildlife and Fish including Threatened and Endangered Species

1. Maintain the vitality, distribution and abundance of animal populations. At a minimum, maintain viable populations of existing native and desired non-native vertebrate species on National Forest lands. No species should be eliminated from an area. Maintain the longterm productivity of wildlife habitats.

2. Identify Threatened, Endangered, and Sensitive plant and animal species habitat. Protect, maintain and/or enhance this habitat in accordance with Recovery Plans. The overall goal is to prevent the Federal listing of Sensitive species and /or, to pursue the delisting of Federally listed species. Develop management guides for T & E species which carry out these goals.

3. Enhance habitat for all native and desired non-native vertebrate species on National Forest lands, with the goal of providing habitat, and a variety of consumptive and non-consumptive fish and wildlife related recreation opportunities.

4. Develop a KV program to accomplish fish and wildlife habitat improvement and/or mitigation needs within timber sale areas.

5. Encourage partnerships with the public and private entities to build rapport with consumptive and non-consumptive user groups and committees, as well as completing habitat enhancement, inventory, and monitoring projects.

6. Cooperate with Washington State Wildlife and Fisheries Agencies and American Indian Tribes to provide habitat for desired levels of resident and anadromous fish.

7. Provide designated habitat areas for Management of Indicator Species.

8. Develop complete inventories of threatened, endangered, and sensitive species. Develop reliable and accurate baseline indicies for other management indicator species, and monitoring procedures for accurately determining the responses of these species to management activities.

9. Provide opportunities for the public to enjoy wildlife through consumptive and non-consumptive activities. Emphasize informational and educational opportunities for Forest users to learn about wildlife and their habitats. Increase opportunities for wildlife viewing and photographing on the Forest.

10. Manage for the highest levels of populations of indicator species and other desired wildlife appropriate to an area and compatible with the Management Area allocation.

11. Protect special and unique habitats and ensure the maintenance of habitats which are fragile or uncommon.

Longterm Productivity and Diversity

1. Maintain native and desirable non-native plant and animal species and communities.

2. Provide for all seral stages of terrestrial and aquatic plant associations in a distribution and abundance to maintain the productivity of these communities.

3. Provide for wildlife diversity through genetic interchange by linking late seral stage areas with corridors of mid to late seral stage vegetation.

4. Conserve or enhance long-term site productivity. For example, maintain down large and fine woody material following timber harvest.

5. Provide diversity within forested stands by maintaining more than one horizontal vegetative layer.

Range

1. Develop opportunities, where needed, to utilize transitory range by domestic and recreation livestock where they don't conflict with other resource goals, including those for wildlife and riparian management.

Timber

1. Apply appropriate silvicultural systems to attain long-term sustained yield on all suitable lands assigned to timber production, either full or partial yield.

2. Utilize silvicultural systems which best meet needs of site, species, and other multiple use objectives.

3. Conduct mortality salvage harvest on all accessible, available, capable, and suitable lands in a timely manner compatible with other resources and uses.

4. Increase utilization of wood residues to minimize site preparation and hazard reduction costs when compatible with other resource objectives.

5. Utilize burning only as a last resort method of disposal or where site preparation through burning is needed.

6. Provide maximum opportunities for gathering of firewood commensurate with resource objectives.

7. Maintain prime forest lands in timber production.

8. Utilize genetically improved stock for reforestation.

9. Promptly reforest all capable, available, and suitable lands following harvest, fire, insects, etc.

10. Maintain or expand timber land base in land exchange actions.

11. Utilize appropriate logging systems to achieve multiple use and silvicultural objectives in a cost-efficient manner.

12. Use KV funds to enhance recreation, fish, wildlife where appropriate.

Soil, Water, Riparian and Air

1. Maintain soil and water resources and do not allow significant or permanent impairment of the productivity of the land.

2. Protect streams, lakes, wetlands, and other bodies of water. Protect soil and riparian vegetation by appropriate buffer zones or modified silvicultural prescriptions, reflecting local topographic, soil, and vegetative conditions.

3. Restrict or prohibit developments and require “flood proof” road crossings in flood plains and wetlands.

4. Maintain water quality by complying with State of Washington Water quality Management Plan developed pursuant to Federal Water Pollution Control Act. Provide high water quality to meet the needs of the users of that water, including fish populations.

5. Develop a KV program to provide for improvement and mitigation of soil and water resources in timber sale areas.

6. Manage municipal-supply watersheds to provide a level of water quality and quantity which, with adequate treatment by the purveyor, will result in a satisfactory and safe water supply.

7. Do not allow significant or permanent impairment to air quality or air quality related values.

8. Maintain the air quality over the Forest to meet Federal and State standards and protect air quality related values from pollutants generated within or downwind of the Forest.

9. Manage air pollutant generated activities to insure compliance with State and Federal Laws.

Minerals and Energy

1. Support orderly exploration and development of mineral and energy resources.

2. Include special stipulations in leases and permits, as necessary, to integrate exploration and development with the protection and management of other resources and uses.

3. Minimize adverse environmental effects of mineral and energy resource exploration, development, and extraction on other resources and uses.

Lands

1. Improve administration and management efficiency through appropriate land ownership adjustments. Give priority to land exchanges that maintain or improve the capability of the Forest to produce goods and services.

2. Give preference to use of purchase authorities to acquire lands important for wilderness, wildlife, or recreation resources.

3. Acquire road and trail easements which provide for public and commercial access to all National Forest lands.

4. Advocate that hydro-electric project license provide recreation opportunity development, operation, and maintenance to meet the recreation demand generated by the project, and protect and enhance affected fisheries.

5. Advocate land exchange and purchase which support recovery programs for threatened and endangered species.

Facilities

1. Build and maintain transportation system facilities to the minimum standard needed to support planned uses and activities.

2. Manage the transportation system at minimum standard necessary to provide for public safety.

3. Encourage the development and use of mass transit facilities to heavy public use areas, such as winter sports complexes.

4. Locate support facilities to provide for management efficiency, public service, and energy efficiency.

5. Utilize alternative energy sources for water and space heating.

6. Minimize adverse effects of vehicular traffic on wildlife.

Protection

1. Establish areas and conditions under which prescribed fire, through the use of planned and unplanned ignitions, will be used to meet management objectives.

2. Treat natural and created fuels to levels needed to meet resource needs.

3. Cooperate with the appropriate agencies in fire prevention, presuppression and suppression activities.

4. Cooperate with the appropriate agencies in law enforcement activities on National Forest lands.

4. Utilize integrated pest management processes in determining needed control actions.

Wild and Scenic Rivers

1. Utilize State, County, local and other Federal agency authorities for management of River segments on private lands.

2. Provide opportunities for public access and use of the rivers while providing for the rights of adjoining private owners.

3. Maintain a leadership role in protecting designated Wild and Scenic River values.

Visual Quality

1. Establish and implement visual quality objectives for all Forest lands.

2. Maintain the visual variety that is characteristic of the Northwest Cascades.

Archaeological and Historical Properties

1. Inventory, evaluate and protect cultural resources on all Forest lands. Give priority for inventory and evaluation to those areas where ground-disturbing activities are planned and where cultural resources are most likely to be found.

2. Work towards thematic evaluations in conjunction with Washington State Historic Preservation Officer.

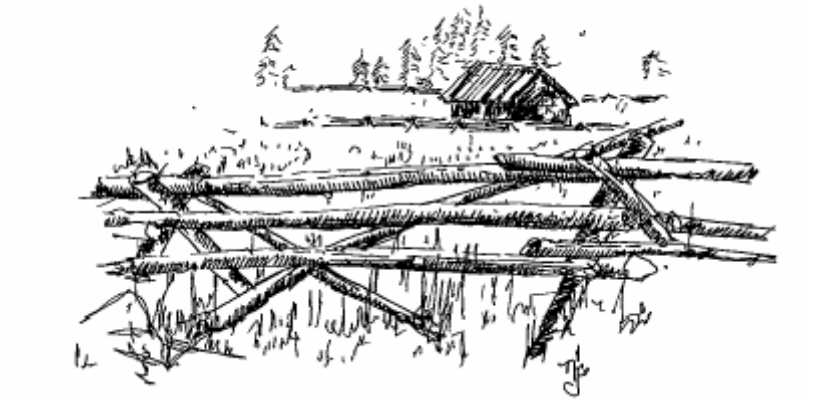
3. Protect and interpret resources representing the full range of cultural resource types present on the Forest. Priority in protection activities will be based on level of significance (National, State of local), and frequency of the resource type within the Forest. Protection will be explicitly considered for all significant resources.

4. Coordinate interpretive efforts with Federal, State and local Agencies, local historical societies, universities, businesses, volunteer associations and other interested groups.

American Indian Religious and Cultural Uses

I. Coordinate with American Indian tribal leaders to improve the inventory of religious and cultural use sites on National Forest lands.

2. Consult with American Indian tribal leaders during planning and design of proposed projects within inventoried sites.



B. DESIRED FUTURE CONDITION

Implementation of this Forest Plan is an incremental step in progressing from the current situation (Chapter 2) to the desired future condition of the Forest. In many instances this desired future condition cannot be attained during the life of this Plan (10-15 years) but will require several decades.

The incremental change in any particular decade can best be characterized as evolutionary as opposed to revolutionary.

The desired future condition of the Forest cannot be summarized in a single statement, as it differs between management areas. The long-term desired future condition for each of the management areas is discussed later in this chapter, in Part E, Management Prescriptions. A general discussion of some of the more significant changes on the Forest is presented below.

The Forest In Ten Years

The physical and biological changes in the structure of the Forest, as a result of carrying out the management practices contained in this plan, will be subtle on a Forest-wide basis, but may be more dramatic on an area-specific basis.

A spectrum of dispersed recreation opportunities from primitive to roaded modified will exist on the Forest. There will be a slight reduction in the availability of primitive and semi-primitive nonmotorized opportunities, as some areas currently providing these recreational opportunities become developed. Opportunities for large group activities in primitive and semi-primitive nonmotorized settings will have decreased to the point that they may be unavailable or restricted at the more popular destination points. Forest trails will have increased in mileage and will be in better condition, safe and well maintained. Summer ORV use will be limited to a few specific sites and trails.

Opportunities for a variety of developed recreation activities will exist. The condition of the physical facilities at developed sites will have improved to the point that all facilities in place will be safe, functional, and attractive.

Use at the more popular destination sites in wilderness will have increased to the point that physical, biological, and social changes have approached, or reached, the Limits of Acceptable Change (LAG). Management controls to limit use will have been implemented. Efforts to rehabilitate areas of overuse will have been implemented, but methods and techniques to accomplish needed rehabilitation will still be in the developmental stage. The effects of fire in wilderness may be more visible, as prescribed fire is used more frequently to alter vegetative patterns.

The roadless areas of the Forest will have decreased by 20,300 acres. This figure equates to 94% of the original roadless acres.

The foreground of scenic viewsheds will have changed very little from the condition they were in at the time this Plan was implemented. Occasional small clearcut harvest units will be visible, but will borrow from or repeat the form, line, color, and texture of the natural landscape. An exception will be in areas of intermingled ownership, where nearly all non-Federal lands will have undergone clearcut timber harvest.

Scenic viewshed, middleground, will have undergone more change than foreground, but the management activities will be subordinate to the natural landscape. An exception will be in areas of intermingled ownerships.

More than 50% of the Forest's acreage will be inventoried for cultural resources. All reported archaeological and historical sites have been recorded. Interpretation of these cultural resources is fully integrated into the recreation program, with a variety of established interpretative sites and programs.

Less inventoried use area will remain suitable for American Indian religious and cultural uses; however, such uses will continue. Some users may have to shift locations of spirit and vision questing activities, or find new localities for collecting ceremonial flora.

Habitat necessary for wildlife species that prefer or require old growth forests will have been reduced, but will still be well above that needed to maintain viable population levels and will be distributed so as to provide genetic viability. Wildlife preferring younger successional stages of forest habitat will show an increasing trend in populations. This trend may not be measurable except in areas of intermingled land ownership, where timber harvest on non-Federal lands has proceeded at a faster rate than on National Forest lands.

Deer and elk will increase, and mountain goat populations will remain essentially the same as they are currently. Vegetative manipulation on winter and summer range through timber harvest activities and forage improvement projects will have brought about short term increases in deer and elk popul ations.

Populations of bald eagles on winter feeding grounds will remain the same or show a slight increase. Populations of nesting bald eagles on National Forest lands will remain the same or show a slight increase. Populations of grizzly bear, American peregrine falcon, and gray wolf will be similar to current populations, although much more accurate census data will be available for these species.

Bald eagle nesting and roosting areas, and any known peregrine falcon nesting areas will be managed under approved site management plans. Management guides will have been developed for all sensitive species, and some species may have been removed from the sensitive list through management protection or enhancement.

The Forest will have developed opportunities for the public to view wildlife and to increase their understanding and appreciation of wildlife. Programs, displays and publications help the public learn to experience wildlife in ways that are least impactful to their habitat and populations.

Partnerships have been formed with a wide variety of users for habitat enhancement, protection and species inventories and monitoring.

Anadromous fish habitat will have improved significantly on National Forest lands, through habitat improvements and more refined management practices in riparian areas. Resident fish habitat will also have improved, through enhancement projects.

Progress towards reaching the desired future condition on that portion of the Forest managed for timber production will have been steady, but slow. A total of 28,650 acres will have been converted from older age classes to younger ages. Age class distribution will now favor the younger age classes of 110 years or less (204,000 acres out of 346,000), mortality will remain higher than desired, and growth will be lower than that possible when a fully managed condition is reached. Approximately one percent (2,865 acres) per year of the lands suitable for timber production will have been harvested. Approximately 66% (18,879 acres) of the total acres be old growth, and nearly all of the harvesting will be by clearcut harvest systems.

The quality of raw water flowing from municipal watersheds will continue to be of good quality. Increased requirements for public health will have resulted in some of the larger water purveyors having installed filtration equipment. Several of the smaller municipal watersheds will have been abandoned in favor of wells or alternative water sources.

There will be no significant change in activity related to locatable minerals. Minor increases will occur in leasable minerals area with increasing interest in geothermal resources. Anticipated downturn in use of common variety materials for forest development will be offset by increases in public demand for these minerals.

Opportunities for the Forest to help enhance the vitality of surrounding communities will occur through a Regional initiative called the Pacific Northwest Strategy. It is envisioned that the Pacific Northwest Strategy will be a new focus of operation for many people, one that empowers Forest Service people and local citizens to look and work beyond the traditional boundaries. At the same time, it reaffirms and emphasizes working with other government agencies, local businesses, and the communities themselves in a spirit of interdependency and cooperation that has always existed at the local Ranger District level. As the Strategy becomes an integral part of doing business, its central focus will be to foster and enhance communication, cooperation, and partnerships.

The Forest In Fifty Years

This Forest Plan will be reviewed every five years and revised every 10 to 15 years. The following describes the progress being made towards the desired future condition of the Forest if this Plan were to remain unchanged for 50 years. The desired future condition varies by management area and is included in the management area prescriptions, Part E in this chapter. The following is a general description of the Forest as a whole.

A wide range of dispersed recreation opportunities will exist on the Forest. Acres available by recreation opportunity spectrum (ROS) class will have stabilized. Competition for use of primitive and semi-primitive nonmotorized areas will be high and some form of use limitation will have been imposed to maintain the attributes of isolation, solitude, and an unmodified natural environment.

A wide variety of developed recreation opportunities will exist. New developments will have been added to meet an increased demand. Facilities will be well maintained, and attractive. New facilities will generally be set back from bodies of water to lessen the impacts on riparian resources.

Wilderness use will have stabilized at carrying capacity levels in all wilderness on the Forest. Use will be controlled through a variety of management techniques, but a permit system will have been implemented for at least the more popular areas of all wilderness. More of a mosaic of vegetative patterns will be evident as a result of the use of prescribed fire, although a large majority of the wilderness will still support vegetation in the later successional stages.

Scenic viewsheds will display more of a mosaic of differing age classes of vegetation than when the Plan was implemented. All age classes will still be represented. Desired visual quality levels will still be met and management activities will either not be evident or will be visually subordinate to the natural landscape. Viewsheds within areas of intermingled ownership will be more visually appealing than 10 years after implementation, when nearly all non-Federal lands had been recently clearcut harvested. Areas that were logged during the railroad era will be undergoing harvest of the second-growth stands.

The Forest will be completely inventoried for archaeological and historical properties. Protection and interpretation of a full range of cultural resources remains an integral component of the recreation program.

Acres available for American Indian religious and cultural uses will have stabilized.

On the portion of the Forest where vegetative manipulation occurs, habitat for wildlife species that prefer or require old-growth forests will have stabilized at the level necessary to maintain viable populations. Populations on a Forest wide basis will remain above viable population levels, due to additional available habitat in areas where no habitat manipulation occurs. Forest-wide distribution requirements are met. Wildlife species that prefer younger successional stages will still be increasing.

The implementation of habitat improvements over the past 50 years will have resulted in maintaining a high level of habitat capability for elk and deer. Mountain goat habitat capability may have decreased slightly.

Wintering populations of bald eagles on National Forest lands will have increased slowly over the past five decades. Bald eagle and American peregrine falcon nesting habitat on National Forest lands necessary to meet recovery objectives will be available. As recovery population objectives have not been developed, information is not available to suggest population trends for grizzly bear or gray wolf.

The public is provided with a variety of opportunities to view and photograph wildlife and to become informed on wildlife species, their habitat needs, and ways to enjoy them unobtrusively.

Anadromous fish habitat will be of high quality and little changed from that existing at the end of the first decade. Resident fish habitat will be of similar quality.

Age class distribution on lands suitable for timber production will have progressed towards a more even distribution, with a decrease in the older age classes (111,800 acres remaining), and an increase in those age classes younger than 100 years (234,600 acres). Mortality would have decreased and growth increased substantially, as a result of the younger age classes on the suitable lands.

The quality of raw water flowing from municipal watersheds will continue to be of good quality. All water purveyors will either be providing secondary treatment or have switched to sources other than surface water supplies.

Levels of mineral activity will increase in all areas.

Each community will have capitalized on its uniqueness and involved its citizens in the development of a desired future. The activities associated with the Pacific Northwest Strategy will continue to support the goals and plans of resource-dependent communities.

C. FOREST MANAGEMENT OBJECTIVES

This section describes Forest management objectives that support Forest management goals and set the Forest on a schedule toward achievement of desired future conditions. Plan objectives, expressed as average annual resource outputs and activities, are projected for the five-decade RPA planning period in the multi-page Table 4-1. The projected outputs are estimates of goods and services that should result as the Plan direction is fully implemented. Projected outputs and activities in the first RPA decade are averages for the first 10 years of Plan implementation. These projected resource outputs and activities tie directly to the data presented for Alternative J (Preferred) in the Final Environmental Impact Statement. Data comes directly from FORPLAN run reports or was estimated using data extracted from the FORPLAN run files.

Table 4-1 Page 1 of 5
Forest Plan Resource Outputs and Activities

Output/Activity	Unit of Measure	Decade 1	Decade 2	Decade 3	Decade 4	Decade 5
Developed Recreation Capacity	MRVD's/Year	5,598	6,098	6,654	7,210	7,238
Non-wilderness Dispersed Rec. Capacity						
Roaded	MRVD's/Year	3,277	3,730	3,817	3,904	3,991
Unroaded	MRVD's/Year	208	182	160	149	149
Wilderness Capacity	MRVD's/Year	539	539	539	539	539
Trail Construction	Miles/Year	22	22	1	3	1
Trail Reconstr.	Miles/Year	49	2	5	5	5
Developed Site Construction	PAOT/Year	130	100	0	0	100
Developed Site Reconstruction	PAOT/Year	220	900	900	900	1,000
Recommended Wild & Scenic River	Total Miles 1/	452.1 ....>				
Recreation R.	Miles	168.9 ....>				
Scenic River	Miles	149.6 ....>				
Wild River	Miles	133.6 ....>				
Future Visual Condition						
Preservation	M Acres	772.0	733.5	730.9	729.6	729.6
Retention	M Acres	395.4	284.2	255.9	241.8	242.0
Partial Retent.	M Acres	204.2	335.5	353.9	363.0	363.0
Modification & Max. Modif.	M Acres	257.0	275.3	287.9	294.1	294.0

1/ Includes 176 miles outside National Forest Boundary.

Output/Activity	Unit of Measure	Decade 1	Decade 2	Decade 3	Decade 4	Decade 5
Roadless Areas 2/	M Acres	402.9				>
Roadless Areas 2/ Assigned to Roaded Mgmt. Prescript. but not developed in next 15 years.	M Acres	93.1				
Roadless Areas Assigned to Unroaded Mgmt. Prescriptions	M Acres	298.8				
Wildlife and Fish Use 3/	Total M WFUD'S/ Year	825	876	947	1,002	1,052
Hunting	M WFUD's/Year	418	443	463	474	474
Non-consumptive	M WFUD's/Year	25	26	27	28	28
Resident Fish	M WFUD's/Year	382	407	457	500	550
Anadromous Fish 4/	M WFUD's/Year	864	864	864	1,070	1,070
Mgt. Indicator Species 5/						
Bald Eagle	HC for Pairs 6/	4 (one active, 3 potential)				
Amer. Peregrine Falcon & Grizzly Bear	[Occasional sightings of these species have been recorded. Standards and guidelines address habitat management if confirmed to be present.]					
N. Spotted Owl	HC for Pairs 6/	114	104	95	87	83
Pine Marten	No. of Animals	4,440	4,070	3,710	3,420	3,260
Pileated Woodpecker	HC for Pairs 6/	890	810	740	680	650
Primary Cavity Excavators	% of Potential Population	40	40	40	40	40

2/ RARE II unroaded areas released by the Washington State Wilderness Act of 1984. The total 402,930 acres includes about 160,000 acres tentatively suitable for timber production.

3/ Figures used in calculating WFUD's are based on preliminary data. There is currently additional data that shows trends towards larger increases in non-consumptive fish and wildlife, and consumptive fish use with a smaller increase in consumptive wildlife use.

4/ WFUD's for anadromous fish occuring off-Forest not included in totals above.

5/ Other than bald eagle and primary cavity excavators, values are population estimates based on maximum habitat potential. Bald eagle numbers are derived from recovery plan breeding population objectives. Primary cavity excavators are % of potential population on lands suitable for timber production only; outputs will be 80% in riparian areas & 100% in wilderness.

6/ Habitat Capability for Pairs.

Output/Activity	Unit of Measure	Decade 1	Decade 2	Decade 3	Decade 4	Decade 5
Roosevelt Elk						
Winter Range	HC for Indiv 7/	770	690	660	680	710
Summer Range	HC for Indiv 7/	1,240	1,250	1,270	1,280	1,280
Black-Tailed Deer						
Winter Range	HC for Indiv 7/	15,160	13,310	12,510	12,840	13,580
Summer Range	HC for Indiv 7/	19,720	19,640	19,480	19,580	19,650
Mountain Goat	HC for Indiv 7/	1,450	1,440	1,430	1,420	1,420
Wildlife Habitat Improvement	Structures/ Year	1,520	1,520	1,520	1,520	1,520
	Acres/Year	885	885	885	885	885
Anadromous Fish Commercial Harvest	Total M Pounds/ Year	8,874	9,000	9,000	9,000	10,000
Habitat Improvement Over Present	M Pounds/Year	1,065	1,200	1,200	1,200	1,300
Range-Permitted Grazing	M AUM's/Year	1.....				>
Old Growth Remaining 8/	M Acres	625	599	580	561	535
Lands Suitable for Timber Production	Acres	346,411.....				>
Timber Harvest						
Clearcut	Acres/Year	2,865	2,980	3,278	3,409	3,409
Commercial Thin 9/	Acres/Year	200	200	200	200	200
Allowable Sale Quantity	MMCF/Year	22.4	25.7	27.9	29.7	29.7
	MMBF/Year	110	N/A	N/A	N/A	N/A
TSPQ	MMCF/Year	25.5	28.5	30.5	31.9	31.6
	MMBF/Year	122	N/A	N/A	N/A	N/A
LTSYC	MMCF/Year	30.4				>
Fuelwood	MMCF/Year	1.234	1.238	1.149	0.817	0.408
Reforestation 10/	Acres/Year	2,865	2,980	3,278	3,409	3,409
Planting	Acres/Year	2,239	2,541	2,395	2,700	2,705
Natural Stocking	Acres/Year	626	439	883	709	704
Timber Std. Improv	Acres/Year	996	2,911	1,801	2,137	2,124

7/ Habitat Capability for Individuals
8/ Decade 1 old growth remaining at the end of the decade.
9/ Commercial thinning planned outside of FORPLAN model.
10/ Includes all areas harvested by clearcut.

Output/Activity	Unit of Measure	Decade 1	Decade 2	Decade 3	Decade 4	Decade 5
Fuel Treatment 11/	Acres/Year	2,865	2,980	3,278	3,409	3,409
Water Yield	M Ac-Feet/Year	15,616				>
Sediment						
Background	M Tons/Year	53.8				>
Activity Over Background	M Tons/Year	34.7	34.3	32.8	32.5	32.4
Improved Watershed Condition	Acres/Year	35				>
Energy Minerals	Billion BTU's Produced/Year	0	86	Unest.	Unest.	477
Non-energy Minerals	Cases/Year	115	Unest.	Unest.	Unest.	Unest.
Special Uses	Permits/Year	590	600	600	600	600
Road Construction						
Arterials and Collectors	Miles/Year	.8	.7	0	0	0
Timber Purchaser	Miles/Year	12.6	11.1	10.0	8.1	7.9
Timber Purchaser Road Reconstruct.	Miles/Year	40.1	46.0	50.0	54.0	53.4
Roads Suitable for Public Use by Passenger Car	Miles	1,039	1,204	1,271	1,317	1,353
Roads Suitable for Public Use, High Clearance Vehicle	Miles	1,483	1,719	1,816	1,881	1,932
Road Maintenance	Miles/Year	3,034	3,152	3,252	3,332	3,411
Local Roads Closed to Public Use 12/	Miles	512	229	165	34	126
Land Line Location	Miles/Year 13/	18	18	18	18	18

11/ Include's all types of treatment inc. broadcast burning, piling and burning, loping and scattering etc.

12/ These are local or timber purchaser roads that are closed but will be opened for timber sales in the future.

13/ Miles of land line marked and posted to standard.

Output/Activity	Unit of Measure	Decade 1	Decade 2	Decade 3	Decade 4	Decade 5
Human Resource Prog.	Person-Yrs/Yr	29.....>				
Jobs	M Jobs/Year	28.8	38.6	46.3	52.6	59.0
Income	MM $/Year	522	Unest	Unest.	Unest.	Unest.
Payments to Counties	MM $/Year	4.9	6.3	6.7	8.1	9.6
Operational Costs	MM $/Year	13.3	15.3	14.1	14.6	14.7
Capital Investment Costs	MM $/Year	4.7	4.0	1.4	1.2	1.1
Total Budget	MM $/Year	18.0	19.3	15.6	15.8	15.9
Returns to Treasury	MM $/Year	16.8	23.9	25.7	31.4	37.7

Resource Summaries

The following resource summaries include a brief description of the resource program, how the resource and activities will be managed, and a description of outputs and activities to achieve management objectives. Detailed schedules of activities to achieve management objectives are in the appendices. These planned activities will be the foundation for developing the Forest's annual budget and program of work.

Recreation

The following section describes the dispersed and developed recreation programs and resource outputs planned and expected as a result of management under the Plan.

Dispersed Recreation

The assignment of land in the Plan will result in 16% of the total Forest acres (273,400 acres) being available for nonwilderness, unroaded dispersed recreation. These acres will provide the opportunity for 165,105 RVD's. The majority of these opportunities will be in the semi-primitive nonmotorized recreation opportunity spectrum (ROS) class.

An additional 93,100 acres will remain unroaded during the first decade, although assigned to management prescriptions that project future development. This will result in an additional 51,205 RVD's of unroaded recreation, available through Decade 1.

The primary management activities in the assigned unroaded recreation areas over the next decade will: provide alternatives to impacting wilderness, and help reduce conflict between different recreation user groups in other areas. Increased trail construction, greatly increased reconstruction, and maintenance will aid in accomplishing this goal. Approximately 200 miles of new nonwilderness trail will be constructed in the first decade. Twenty miles of wilderness trail will be constructed. Another 493 trail miles will be reconstructed during the first decade. For further details on the trail program, see Appendix E of this document.

Dispersed winter sports activities, such as cross-country skiing and snowmobiling, will continue to be encouraged. Where opportunities exists, both winter and summer dispersed recreation will be enhanced through timber sale activity by providing use sites, parking, trail access, and vegetative improvement. Additional Sno-Park facilities will be encouraged where the need is demonstrated.

The "Trail Management Plan" in Appendix E will attempt to reduce recreational conflicts between user groups. Whenever practical, these different uses (trail bikes, horses, hikers and mountain bikes) will be separated if conflicts cannot be avoided or minimized thru public information and education.

Roaded recreation will ultimately occur on 37% of the Forest (630,550 acres). These figures represent the rural, roaded natural and roaded modified ROS classes combined. This will provide the opportunity for 3,277,000 RVD's of recreational opportunities in a roaded environment in the first decade, rising to 3,991,000 RVD's by the fifth decade.

Commercial outfitters and guides will continue to be utilized as a method of meeting public demand, but new permits will be limited to a level that permits a balance between the individual non-guided user and those availing themselves of guide services.

Developed Recreation

Developed recreation will continue to be an important program on the Forest. By the end of Decade 1, demand for developed recreation will likely range form 2.8 to 3.5 million RVD's; this range is still below the existing practical developed capacity of the Forest. By the end of the fifth decade, the demand range is 6.7 to 8.2. New construction to meet this demand is described below.

The emphasis for the first decade will be placed on improving existing popular campgrounds. Also, those campgrounds that are non-fee and capable of a favorable cost/revenue ratio will be converted to fee status by the installation of facilities required to meet the criteria as fee sites. Selection of sites to be converted to fee status will be selective and is not expected to have a substantial displacement on the users of non-fee facilities.

A top priority will be rehabilitation of existing sites that currently need heavy maintenance. In Decade 1, an average of 10% of the existing units per year will be reconstructed, rebuilding most of the sites within the next 10 years. This equates to about 170 units, or four campgrounds per year on the Forest. After the first decade, it is expected the facilities would be in good enough condition that reconstructive maintenance could be reduced to 5% per year.

As early as the latter years of Decade 1, some new construction of developed campgrounds is anticipated, as more capacity may be needed. As many as 100 units (500 PACT's) may be added. This will most likely be expansion of existing campgrounds rather than new site development, but several new sites are proposed late in the first decade. Refer to Appendix D for the lists of specific sites for reconstruction or improvement.

An additional emphasis will be construction/reconstruction of developed recreation facilities for the day user. Picnic sites, vistas, interpretation and nature walks are the types of recreation experiences anticipated to be in the highest demand. Planned construction for Decade I includes the completion of the Heather Meadows Day Use project. To increase day-use capacity, 8 to 12 day-use sites averaging 20 units each will be added in the next few decades (see Appendix D). This will result in an 800-1200 PAOT increase in capacity.

All ski areas that have expansion capacity under approved Ski Area Master Plans are expected to add development facilities. Expansion should be commensurate with expected improvements in service, and permitted on the basis of actual public need. It is anticipated that some ski areas will have base-area expansion, particularly to enhance overnight and mid-week resort opportunities.

Public information and interpretative services will be expanded in the first decade of the Plan and thereafter to respond to public demand. Expansion will encompass staffing as well as facilities, displays, equipment, and published materials. Emphasis will continue towards sharing of information services with other agencies and partnerships with private outlets where possible. Emphasis will also be given to intensifying the Forest's public outreach programs to allow certain segments of the public to become more familiar with recreation opportunities on the National Forest.

Trails

The System Trail Inventory, in Appendix E, provides direction for the management of the Forest's approximately 1383 miles of system trails.

Generally, trails will be constructed or reconstructed as needed for resource protection and to complement the objectives of the management prescriptions. When possible, through-trails will be routed away from areas of concentrated use, such as lakes and popular focal-points, to avoid unnecessary visitor encounters and environmental impacts.

Each trail will have a "primary objective" for management. While there may be other users allowed on any given trail, the trail standards and maintenance activities will reflect the standards for that primary objective and difficulty level that the trail is to be managed for (see FSH 2309.18 for standards)

The Forest policy is to restore trail mileage disrupted by management activities or to replace them with equal miles in the same general location. The intent is to not diminish the trail miles in the local area. The cost of this will be charged to the management program causing the dislocation. Loop trails will be favored. Special emphasis will be given to the planning and construction of low-elevation, snow-free trails.

The reconstruction of existing trails will be emphasized over the construction of new trails, if budgetary constraints force prioritization.

The following sections briefly discuss specific types of trails. For further information on trails refer to the Trail Management Plan, Appendix E.

Pacific Crest National Scenic Trail. There are 96 miles of this trail located within the Mt. Baker-Snoqualmie, along the crest of the Cascade Mountains. The trail will be maintained to the standards established and meet the objectives of the "Pacific Crest National Scenic Trail (PCNST) Comprehensive Plan." Where the trail passes through wilderness, location, design, construction, and maintenance standards will be modified to the extent needed to meet the intent of the WRS class through which the trail passes.

National Recreation Trails. recognition for outstanding recreation trails are shown
The Forest has four trails given national recreational values. The designated national in Table 4-2.

Table 4-2
National Recreation Trails

Trail Name and Number	Ranger District	Miles
Shadow of the Sentinels #623	Mt. Baker	0.5
Ice Caves Trail #723	Darrington	1.2
Deception Falls Nature #1078	Skykomish	0.5
Skookum Flats Trail #1194	White River	7.6

The trails listed in Table 4-3 will be proposed for National Recreation Trail status by this Plan when they are brought to a maintenance standard appropriate for this designation.

Table 4-3
Proposed National Recreation Trails

Trail Name and Number	Ranger District	Miles
Artist Ridge Trail #669	Mt. Baker	0.7
Fire and Ice Trail #684	Mt. Baker	1.0
Picture Lake Trail #735	Mt. Baker	1.0
Table Mountain #681	Mt. Baker	2.7
Heliotrope Ridge #677	Mt. Baker	3.0
Sulphur Moraine #603.1	Mt. Baker	8.0
Sauk Mountain #613	Mt. Baker	2.0
Iron Goat Trail #1074	Skykomish	7.6
Lake Serene Trail #1068	Skykomish	3.0
Franklin Falls Trail #1036	North Bend	1.0
Granite Mountain Trail #1016	North Bend	2.0
Snoqualmie Pass Wagon Rd. #1021	North Bend	1.0
Annette Lake Trail #1019	North Bend	3.6

Wilderness Trails. There are currently 580 miles of system trails in wilderness; this represents 42 percent of the total trail mileage on the Forest.

Approximately 20 miles of new trail will be constructed within wilderness during the first decade of the Plan. This construction will be for the purpose of protecting wilderness from further resource damage. The trails to be constructed are listed in Appendix E of this Plan.

Reconstruction of existing trails within wilderness is a much higher priority than new construction. Approximately 130 miles will be rebuilt in the first decade of the Plan. Trails will be reconstructed to protect the wilderness resource and to meet the objectives of the WRS class through which it passes. The second highest priority for reconstruction will be those trails where use is causing resource damage. The highest priority will be those short trail segments posing hazards to users.

Third priority for reconstruction will be relocation of long trail sections where current use is causing resource damage to adjacent areas away from the trail itself (i.e., trails routed near fragile lake shores, or through the middle of alpine meadows). Fourth priority will be reconstruction of long segments as needed to change existing trail standards to meet the objectives of the Plan (i.e., upgrading a trail for use by horses).

As user demands on wilderness continue to increase and as cross-country travel becomes more popular, user-travel routes are expected to appear within the general trailless WRS class. Upgrading will take place only if it has been determined, based on LAC standards, that a travel route is causing unacceptable resource damage, and when user awareness and other reasonable measures have failed to prevent the unacceptable impacts of the travel route.

Nonwilderness Trails. There are 803 miles of nonwilderness trails on the Forest. Of these, 425 miles are closed to motorized use. The current emphasis on hiker-only and horse trails will remain in effect.

The Plan calls for the construction of 134 miles of new trail outside of wilderness to provide alternative recreation opportunities. These trails will generally be constructed in the semi-primitive nonmotorized and roaded natural ROS areas and will meet the management objectives of those classes. Trail system planning will become an integral part of all project planning to assure continuation of a top quality trail program.

Cross-country Ski Trails. Cross-country ski trails have been developed and maintained over the years by the Forest Service and volunteers. There are approximately 129 miles of these trails. Many additional miles of skiing opportunities exist on snow-covered Forest roads. Expansion of ski touring trails is anticipated in the first decade. Groomed trails (with a pre-set track) will also expand as demand grows and funds become available.

Snowmobile Routes. The miles of roads and trails available for snowmobile use will vary from year to year based on weather conditions, wildlife habitat management, and logging activities. Over 200 miles of Forest roads and trails will be available for this use. In addition, certain areas of the Forest, such as Easton Glacier, have been identified as unroaded snowmobile areas.

0ff-road Vehicle and 4x4 Routes. Four-wheel driveways are very low standard travel-ways to be used by short wheelbase vehicles. There are approximately 25.7 miles of this type of route available on the Forest. The most popular areas for this type of use are Naches Pass Wagon Road, Evans Creek ORV Area, and the Greenwater Drainage.

The Off-Road Vehicle Plan in Appendix H identifies specific road, trail, and area closures for ORV use. The ORV Plan will be updated periodically and will indicate which trails are open or closed to motorized use and any seasonal variations. Coordination with wildlife habitat management, such as seasonal closures, will be included.

Scenery

The Mt. Baker-Snoqualmie National Forest contains some of the nation's most scenic forest landscapes. Management under the Plan will help assure maintenance of this scenic resource. This subsection describes visual resource guidelines and plans, and the visual resource program.

Visual Resource Guidelines and Plans

The principles are contained in "National Forest Landscape Management, Volumes 1 and 2" and handbooks in the "Visual Management System" are to be used in managing the visual resource.

Application of visual management principles in wilderness administration is necessary for the continued maintenance of high quality scenery. Construction, rehabilitation, or reconstruction of trails or campsites require application of the "visual absorption capacity" concept to protect and maintain scenic values.

The Mather Memorial Parkway and Stevens Pass viewshed plans are available to provide further direction for management of the visual resource in those areas. Additional viewshed plans will be completed during the next decade for such areas as the Mt. Baker Highway, Baker Lake Highway, Mountain Loop Highway, and others.

Visual Resource Program

Scenic quality will be maintained and gradually improved within seven scenic viewsheds: Mather Memorial Parkway, Mountain Loop Highway, Stevens Pass Highway, North Cascades Highway, Mt. Baker Highway, Baker Lake Highway, and Snoqualmie Pass Highway. Lands within these scenic corridors will be managed at a high visual quality level in both the foreground and middleground. A total of 25,300 acres are to be managed at the retention level, and an additional 83,600 acres will be managed under the partial retention classification. On the 42,400 acres where inventoried deer and elk winter range overlaps with these scenic viewsheds, the objectives for both scenic and winter range will be met. Refer to Figures 4-la and 4-lb for the location of these scenic corridors.

Within wilderness, 721,718 acres will be managed at the preservation VQO, while 726,000 acres outside of wilderness will be managed for a VQO of partial retention or higher. Of the 444,840 acres suitable for timber management, approximately 120,000 acres will have retention or partial retention VQO's to protect visual quality.

Outside of specified viewsheds, wilderness, and unroaded areas, scenic quality will moderately decline. Moderately to heavily altered landscapes will exist in many of the Forest's viewsheds, among them: Cascade River, Illabot Creek, Rapid River, Crystal Mountain, and Corral Pass. Table 4-4 shows the complete summary of visual management by viewshed. A total of 275,035 acres of the Forest will be managed under modification or maximum modification VQO. These lands will appear as altered or heavily altered when viewed from Forest roads. Even though alteration of the natural appearance of these lands is allowed, visual management principles will be applied, to blend alterations with natural 1 andforms.

With the proper application of the visual management direction contained in the management prescriptions and standards and guidelines (this chapter), and visual management handbooks, the predicted visual appearance of the inventoried viewsheds is as indicated in Table 4-4.

Table 4-4
Visual Resource Summary (Viewsheds)

Viewshed Name	Acres	EVC 2/	VMS 3/	Expected Visual Condition 1/ Year 10	Year 50
North Fork Nooksack River	10,707	S	S	S	S
Ruth Creek	1,035	S	S	M(-)4/	M(-)
Galena Creek	1,858	M	S	S(+)	S(+)
Canyon Creek	4,076	H	M	H	H
Swamp Creek	1,521	M	M	M	S(+)
Wells Creek	3,527	H	M	H	N(+)
Deadhorse/Cascade Creeks	1,288	H	M	N(+)	N(+)
Glacier Creek	2,935	S	N	M(-)	H(--)
Sulphur Creek	4,414	H	S	H	M(+)
Baker Lake	19,851	S	S	S	S
Anderson Creek	1,837	H	S	M(+)	N(+)
Middle Fork Nooksack River	1,330	H	N	M(+)	M(+)
Loomis Mountain	5,026	H	M	H	H
Shannon Creek	1,858	M	M	N	M
Sauk Mountain	465	H	S	H	H
Skagit River	802	M	S	S(+)	S(+)
Bacon Creek	2,386	H	M	H	N(+)
Cascade River	4,878	S	S	M(-)	M(-)
North Fork Cascade River	253	N	S	N	N
Sibley Creek	676	M	M	S(+)	S (+)
Vee Creek	718	M	M	H(-)	H(-)
Illabot Creek	4,794	H	M	H	H
Hilt Creek	443	H	N	M(+)	M(+)
North Fork Stillaguamish River	1,943	M	S	M(-)	H(-)
Sauk River	12,967	5	S	S	S
Whitechuck River	3,780	N	S	H(-)	H(-)
Suiattle River	8,025	M	S	M	N
French Creek	443	N	M	N(--)	M(--)
Green Mountain Pasture	1,056	H	M	M(+)	M(+)
South Fork Stillaguamish River	9,672	N	S	S(+)	S (+)
Green Mountain	10,749	H	M	H	H
Bear Lake	1,457	H	N	M(+)	M(+)
Deer Creek	1,035	M	N	S(+)	S(+)
Beaver Creek	1,183	H	M	N(+)	S(++)

Viewshed Name	Acres	EVC 2/	VMS 3	Expected Visual Condition 1/ Year 10	Year 50
North Fork Sauk River	2,386	S	N	S	S(+)
North Fork Skykomish River	6,167	M	S	N(+)	M(+)
Skykomish River (Highway 2)	25,616	N	S	N	M
Barclay Creek	739	H	N	M(+)	M(+)
Upper North Fork Skykomish River	2,893	M	S	S(+)	N(+)
Rapid River	2,851	H	N	H	H
Beckler River	7,117	H	N	H	H
Money Creek	2,661	M	S	S(+)	S(+)
East Fork Miller River	2,788	M	S	S(+)	S(+)
Foss River	2,344	S	M	N(-)	M(-)
Lennox Creek	2,745	N	M	N	M
Maloney/Evans Creek	781	H	M	H	M(+)
Tonga Ridge	1,837	H	N	H	M(+)
Taylor River	2,893	N	S	S(-)	S(-)
Middle Fork Snoqualmie River	8,701	M	S	S(+)	S(+)
South Fork Snoqualmie River	8,468	H	S	H	N(+)
White River	5,660	M	S	S(+)	S(+)
Crystal Mountain	3,104	N	S	H(-)	H(-)
Greenwater River	2,576	M	M	H(-)	H(-)
Suntop	1,077	H	M	M(+)	N(+)
Cayada Creek	1,732	M	N	H(-)	H(-)
Corral Pass	887	N	N	H(-)	IN-)

1/ Visual Condition Codes:

N = Naturally Appearing. Area appears untouched by humans; changes are not visually evident; corresponds to VQO of preservation or retention.

S = Slightly Altered. Changes may be noticed by the average visitor but do not attract attention; natural appearance dominates. Corresponds to VQO's of retention and partial retention.

N = Moderately Altered. Changes easily noticed by average visitor and may attract attention; disturbances are apparent. Corresponds to VQO's of partial retention and modification.

H = Heavily Altered. Changes strong, obvious to average visitor; changes dominate landscape but may resemble natural patterns when viewed from 3-5 miles; disturbances are major. Corresponds to VQO's of modification and maximum modification.

2/ EVC = Existing Visual Condition. Many of the acres currently in a heavily altered condition will remain that way for several decades. A viewshed's EVC rating or future visual condition (FVC) is an average for the seen area.

3/ VMS — Visual Management System. The expected visual condition if attempts to achieve the inventoried VQ0's were implemented.

4/ The (+) and *(-)* indicate positive or negative change in visual quality compared to the existing visual condition (EVC).

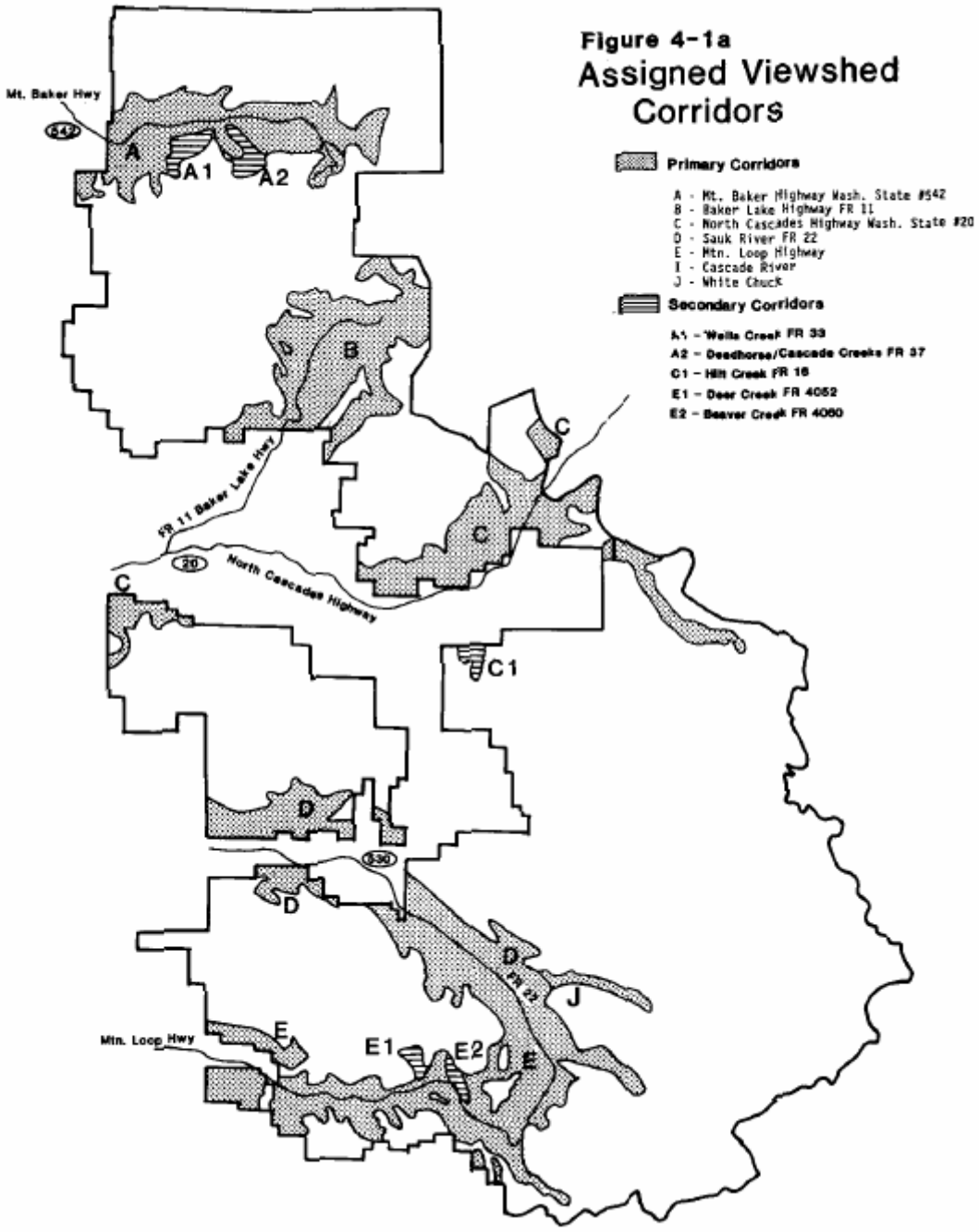
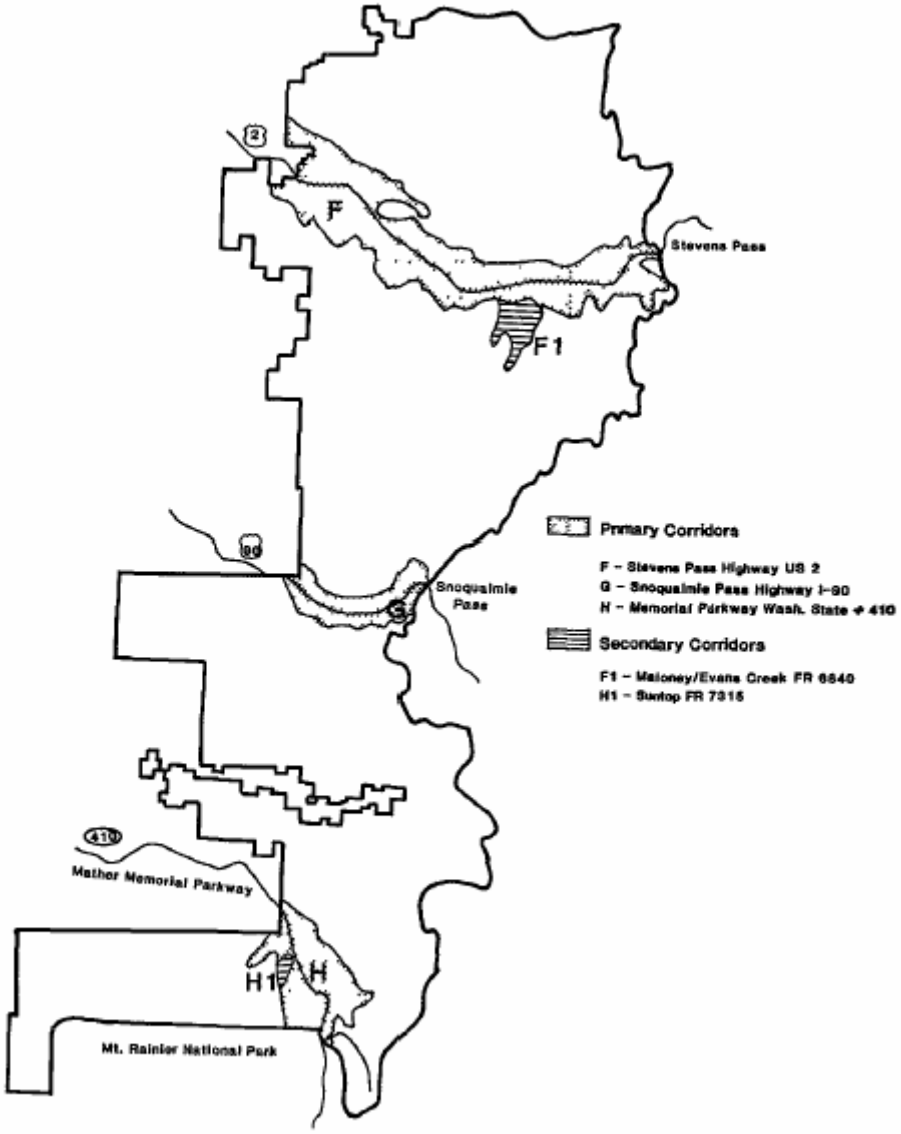

Mt. Baker Hwy
542
A
A1
A2
B
C
C
C
C1
D
D
D
D
20
North Cascades Highway
FR 11 Baker Lake Hwy
530
Mtn. Loop Hwy
E
E1
E2
E
J
Figure 4-1a
Assigned Viewshed Corridors
Primary Corridors
A - Mt. Baker Highway Wash. State #542
B - Baker Lake Highway FR 11
C - North Cascades Highway Wash. State #20
D - Sauk River FR 22
E - Mtn. Loop Highway
I - Cascade River
J - White Chuck
Secondary Corridors
A1 - Wells Creek FR 33
A2 - Deadhorse/Cascade Creeks FR 37
C1 - Hilt Creek FR 16
E1 - Deer Creek FR 4052
E2 - Beaver Creek FR 4060

Figure 4-1b

Assigned Viewshed Corridors



National Recreation Area

Management of the Mt. Baker National Recreation Area will focus on providing snowmobile and cross-country skiing opportunities during the winter, and non-motorized recreational uses during the summer season.

During the winter, snowmobile access will be provided on road #13 to Schrieber's Meadow, into upper Rocky and upper Sulphur Creeks, the upper Railroad Grade, Metcalfe Moraine, and lower Easton Glacier. A new road being developed by a Federal Regulatory Commission (FERC) applicant will also access this area. The Forest will work with the Washington State Sno-Park Program and various user groups to manage the winter use in this area. Snowmobile and cross-country ski traffic will be separated where possible, by such methods as providing an alternate access route to Schrieber's Meadow and surrounding alpine- areas.

Summer use will focus on hiker and horse use. Construction of the Easton Crossing trail segment will complete a loop trail system for overnight use. Horse use will be permitted on the western edge of the area.

Wild and Scenic Rivers

During implementation of the Plan, steps will be taken to recommend for formal designation the river segments shown below, to the recommended classifications. This recommendation is a preliminary administrative recommendation that will receive further review and possible modification by the Chief of the Forest Service, Secretary of Agriculture, and the President of the United States. The Congress has reserved the authority to make final decisions on designation of rivers as part of the National Wild and Scenic Rivers System. Until Congressional action, the values contributing to a rivers particular classification will be protected.

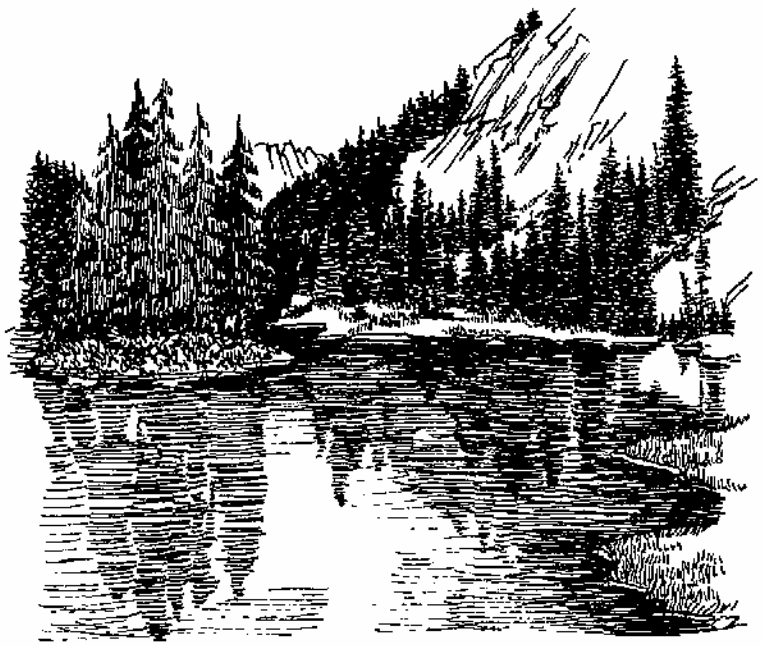


Table 4-5 Page 1 of 3

Recommended Wild and Scenic Rivers

River	Segment	Recommended Classification	Miles
North Fork Nooksack	* Headwaters in the North Cascades National Park to the Mt. Baker Wilderness boundary.	Wild	3.5
	* Mt. Baker Wilderness Boundary to Nooksack Falls diversion dam.	Scenic	9.9
	* Nooksack Falls diversion dam to Nooksack Falls power plant.	Recreation	1.6
	* Nooksack Falls power plant to the fish hatchery near Kendall.	Scenic	18.8
	* Fish hatchery to the confluence with the South Fork Nooksack.	Recreation	9.5
South Fork Nooksack	* Headwaters of the South Fork Nooksack to Bell Creek.	Wild	2.3
	* Bell Creek to the Mt. Baker-Snoqualmie National Forest boundary.	Scenic	4.3
Bell Creek	* Bell Creek headwaters on Loomis Mtn to confluence with South Fork Nooksack.	Scenic	3.0
Baker River	* Headwaters in North Cascades National Park near Perfect Pass to Blum Creek.	Wild	11.2
	* Blum Creek to Baker Lake.	Scenic	2.1
Noisy Creek	* Headwaters on Bacon Creek to Baker Lake.	Wild	6.1
Diobsud Creek	* Headwaters on Mt. Watson to the south section line of Section 24.	Wild	8.3
	* South section line of Section 24 to the confluence with the Skagit River.	Recreation	2.2
Illabot Creek	* Headwaters to Glacier Peak Wilderness boundary.	Wild	4.3
	* Glacier Peak Wilderness boundary to confluence with Skagit River.	Recreation	11.0
Buck Creek	* Headwaters to Glacier Peak Wilderness boundary.	Wild	10.1
	* Glacier Peak Wilderness boundary to the confluence with the Suiattle River.	Scenic	1.0

Downey Creek	* Headwaters on Lizard Mtn. to Glacier Peak Wilderness boundary.	Wild	10.0
	* Glacier Peak Wilderness boundary to the confluence with the Suiattle River.	Scenic	.8
White Chuck River	* Headwaters to Glacier Peak Wilderness boundary.	Wild	10.5
	* Glacier Peak Wilderness boundary to confluence with Sauk River.	Recreation	12.0
North Fork Sauk River	* Headwaters to the boundary of the designated Skagit Wild and Scenic River.	Wild	9.2
Boulder River	* Headwaters to Boulder River Wilderness boundary.	Wild	9.0
	* Boulder River Wilderness boundary to confluence with NF Stillaguamish River.	Recreation	4.0
South Fork Stillaguamish	* Headwaters between Morning Star and Lewis Peaks to Canyon Creek.	Scenic	36.6
	* Canyon Creek to the confluence with North Fork Stillaguamish River.	Recreation	15.9
North Fork Skykomish	* Headwaters to the end of FS Road #63.	Wild	8.2
	* Road end to Troublesome Creek.	Scenic	8.4
	* Troublesome Creek to confluence with South Fork Skykomish River.	Recreation	12.0
Troublesome Creek	* Headwaters at Blanca Lake to FS Rd #63.	Wild	4.4
	* FS Road #63 to the confluence with the North Fork Skykomish River.	Scenic	0.1
West Cady Creek	* Headwaters to bridge in Sec. 21.	Wild	4.8
	* Bridge to confluence with North Fork Skykomish River.	Recreation	2.7
South Fork Skykomish	* Confluence with Tye and Foss Rivers to the confluence with the Snohomish.	Recreation	28.3
Tye River	* Headwaters of the Tye River to the confluence with the South Fork Skykomish and Foss River.	Recreation	14.5
Miller River (to fork)	* Miller River from the confluence of the East and West Forks of the Miller River to the confluence with the South Fork Skykomish River.	Scenic	3.7
West Fork Miller River	* Headwaters to the Alpine Lakes Wilderness boundary.	Wild	2.1
	* Alpine Lakes Wilderness boundary to the confluence with the East Fork Miller River.	Scenic	4.2

East Fork Miller River	* Lake Dorothy to the Alpine Lakes Wilderness boundary.	Wild	0.8
	* Alpine Lakes Wilderness boundary to the confluence with the West Fork Miller River.	Scenic	6.0
Foss River (to fork)	* Confluence of East and West forks of Foss River to confluence with Tye River.	Recreation	4.4
West Fork Foss River	* Headwaters at Delta Lake to the Alpine Lakes Wilderness boundary.	Wild	3.1
	* Alpine Lakes Wilderness boundary to the confluence with the East Fork Foss River.	Recreation	1.5
East Fork Foss River	* Headwaters at Lynch Glacier to the Alpine Lakes Wilderness boundary.	Wild	6.7
	* Alpine Lakes Wilderness boundary to the confluence with the West Fork Foss River.	Recreation	1.2
Deception Creek	* Headwaters at Trico Lake to the Alpine Lakes Wilderness boundary.	Wild	9.8
	* Alpine Lakes Wilderness boundary to the confluence with the Tye River.	Recreation	0.5
NF Snoqualmie River	* Wagner Bridge to confluence with Middle Fork Snoqualmie River.	Scenic	12.1
MF Snoqualmie River	* Headwaters near La Bohn Gap to the Alpine Lakes Wilderness boundary.	Wild	6.4
	* Alpine Lakes Wilderness boundary to the confluence with the Taylor River.	Scenic	13.2
	* Taylor River confluence to near the community of Tanner.	Recreation	15.9
	* Tanner to the confluence with the North Fork Snoqualmie River.	Recreation	4.2
Taylor River	* Snoqualmie Lake to the Alpine Lakes Wilderness boundary.	Wild	1.2
	* Alpine Lakes Wilderness boundary to Quartz Creek Road.	Scenic	5.4
	* Quartz Creek Road to the confluence with Middle Fork Snoqualmie River.	Recreation	1.6
Pratt River	* Headwaters at Melakwa Lake to the Alpine Lakes Wilderness boundary.	Wild	1.6
	* Alpine Lakes Wilderness boundary to confluence with MF Snoqualmie River.	Recreation	7.9
White River	* Headwaters at Emmons Glacier to Huckleberry Creek.	Scenic	20.0
	* Huckleberry Creek to the confluence with the Clearwater River.	Recreation	17.7

It is also the responsibility of the Forest to protect the "outstandingly remarkable" values on those rivers which where eligible for designation but not selected as suitable in the preferred alternative. Refer to Appendix E of the FEIS for further details.

Sensitivity Levels of Wild and Scenic River Corridors:

Table 4-6, shows the sensitivity levels for the wild and scenic river corridors. This table is use,d in conjunction with the guidelines contained under Forest Wide Standards and Guidelines for Visual Resources, and guides visual resource management in designated wild and scenic river corridors

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Table 4-6
SENSITIVITY LEVEL - WILD AND SCENIC RIVERS

River Name	Sensitivity Level	Suitable for Designation
Silesia Creek	2/3	No
North Fork Nooksack	1	Yes
Wells Creek	2/3	No
Middle Fork Nooksack	2/3	No
South Fork Nooksack	2/3	Yes
Bell Creek	2/3	Yes
Baker River	1	Yes
Noisy Creek	2/3	Yes
Diobsud Creek	1	Yes
Illabot Creek	2/3	Yes
Buck Creek	2/3	Yes
Downey Creek	2/3	Yes
White Chuck River	I	Yes
North Fork Sauk River Extension	2/3	Yes
South Fork Sauk River	1	No
North Fork Stillaguamish	2/3	No
North Branch	2/3	No
Deer Creek	2/3	No
Boulder River	2/3	Yes
South Fork Stillaguamish	1	Yes
Canyon Creek (to fork)	2/3	No
South Fork Canyon Creek	2/3	No
South Fork Skykomish	1	Yes
North Fork Skykomish	I	Yes
Troublesome Creek	2/3	Yes
West Cady Creek	2/3	Yes
Tye River	1	Yes
Miller River (to fork)	I	Yes
West Fork Miller River	1	Yes
East Fork Miller River	I	Yes
Foss River (to fork)	1	Yes
West Fork Foss River	1	Yes
East Fork Foss River	1	Yes
Beckler River	2/3	No

Table 4-6
SENSITIVITY LEVEL - WILD AND SCENIC RIVERS

River Name	Sensitivity Level	Suitable for Designation
Rapid River	2/3	No
Deception Creek	2/3	Yes
South Fork Tolt River	2/3	No
North Fork Snoqualmie River	1	Yes
Lennox Creek	2/3	No
Middle Fork Snoqualmie	1	Yes
Taylor River	I	Yes
Pratt River	I	Yes
South Fork Snoqualmie River	1	No
Carbon River	2/3	No
White River	1	Yes
Clearwater River	2/3	No
Greenwater River	2/3	No

American Indian Religious and Cultural Uses

The 1981 “Inventory of Native American Religious Use, Practices, Localities and Resources” (Blukis Onat and Hollenbeck 1981) resulted in the identification of over 300 sites and approximately 450,000 acres of significance to 15 different Indian tribes. Five categories of use areas and sites were mapped and described in the Inventory: (1) spirit quest sites; (2) legend sites; (3) cedar areas; (4) ceremonial flora areas; and (5) archaeological sites and cemeteries.

Archaeological sites and cemeteries are addressed in the following resource summary, “Archaeological and Historic Properties.” All cemeteries will be protected from development impacts.

As a minimum, the Forest will consult with affected Tribes when proposed ground-disturbing projects fall within inventoried use areas or sites, as noted in the Forest-wide Standards and Guidelines. Appropriate mitigation measures will be developed by the Forest Service and Tribal religious leaders.

While over 450,000 acres were identified as sites and areas important for religious and cultural practices, the Inventory stressed that religious and cultural significance was not limited to the identified areas. Additional areas, yet to be specifically identified, contain the potential environmental conditions suitable for religious practices and use. Suitable environmental conditions include unmodified streams, old-growth forest, cedar, ceremonial plants, the qualities of isolation, privacy, and purity of the environment. Scheduled studies will refine the data in the 1981 Inventory.

Archaeological and Historic Properties

The emphasis of the cultural resource program will be 1) continued support of Forest development activities in compliance with historic preservation law; 2) improvement of the data base for management of the resources; and 3) increasing the protection and interpretation of archaeological and historical sites.

Together with areas used by American Indians for religious purposes, these sites are called "cultural resources". A "Cultural Resources Overview" has recently been completed for the Forest. It summarizes knowledge of the prehistoric, ethnographic, and historic resources and is the basis for planning *future* management actions. These fall into two categories: inventory/evaluation and protection/interpretation.

The prehistory of the forested uplands of western Washington is little known; much is merely an extrapolation from adjacent geographic areas. Within the Forest, only 20 sites have been adequately recorded, although at least 80 more have been reported. A major obstacle to the discovery of prehistoric sites on the Forest is the heavy vegetative cover, the low visibility of the ground surface, and the ephemeral nature of many of the prehistoric remains. New approaches must be developed to effectively and reliably inventory the Forest for prehistoric sites.

The ethnographic use of the Forest provides some clues as to expected land and resource use patterns, site locations, and interpretations of sites. It also provides some background on the history of the local Indian groups, many of whom still use the Forest for religious and cultural purposes.

Through records searches, historic sites can be more easily predicted and located. About 250 have been formally recorded, and another 750 have been reported on the Forest. The historic overview sets forth major themes of Forest history including: transportation development, mining, logging, Forest Service administration, recreation, and water development. This historic context provides for the identification of many areas which could be targeted for inventory based on a thematic or district approach.

The historic district approach has been used for the Stevens Pass Historic District and may be appropriate for 14 distinct mining areas, 6 transportation areas, and 8 logging areas. Specific examples include the Snoqualmie Pass Wagon Road, the Northern Pacific Railroad corridor, the Mt. Baker, Silverton, or Index Mining Districts, and logging in the Stillaguamish and Sauk River drainages. Thematic studies already exist for Depression-era administrative buildings and fire lookouts, and may be appropriate for timber claim cabins, native allotments, and water developments.

<u>Inventory and Evaluation</u>

Cultural resource inventories will continue to be undertaken in compliance with historic preservation law and regulations; that is, to allow assessment of the effects of other activities (e.g. timber harvest) on cultural resources. In addition, it will be necessary to undertake inventories not tied to these activities. In both cases, it will be necessary to develop techniques to reliably identify prehistoric sites. This may require more intensive monitoring during road construction and timber harvest. It may also require more systemized use of subsurface probing to test for prehistoric site areas.

The Forest is currently developing an inventory plan which will outline recommendations for survey of prehistoric sites. All sites located during project-related survey will be documented to Regional standards.

Approximately 12,000 acres of the Forest will be inventoried each year, in the course of compliance inventories. In addition, about 15,000 acres of inventory will be necessary on the areas of the Forest not affected by other activities during the life of this Plan. Such inventory is needed to adequately understand the nature and distribution of the resource and eventually obtain a complete cultural resource inventory of the Forest.

There is a backlog of 750 known sites which have not yet been adequately recorded. These sites will be recorded and evaluated using a thematic or district approach. Highest priority will be assigned to those areas targeted for timber harvest and road construction over the next 10 years. However, other forces which cause deterioration to cultural resources, such as natural weathering or vandalism, cannot be ignored. For instance, in some of the heavily used wilderness areas such as Alpine Lakes and Mt. Baker, specific mining districts will be targeted for inventory. The goal will be to record and evaluate 70 sites or 2 districts or thematic groups per year.

There will be an evaluation of significance (determination of eligibility) of all cultural resources before the implementation of any activity may affect them. The evaluation of significance is the basis on which sites are selected for further investigation, preservation and protection, or interpretation. Evaluations are also critical in making decisions to permit alteration or destruction of the cultural resource. Sites will be treated as individual properties, thematic groups, or historic districts. The program emphasis will be away from evaluation of single sites and toward evaluation within a broader historic context and geographic area.

Of the 25 known prehistoric archeological sites most, if not all, are likely to be eligible to the National Register. Those located in project areas or experiencing deterioration will require test excavations as part of formal evaluations. In some cases, full-scale data recovery in the form of extensive excavations may be necessary. The need for this level of cultural resource work is expected to be greatest on the White River Ranger District.

There are 15 historic sites and buildings on the Forest which have already been determined eligible to the National Register. At this time, management plans have not been developed for many of these resources. Such management plans should identify maintenance needs and provide for appropriate use and interpretation. Top priorities for management plans include the Stevens Pass Historic District, Naches Pass Trail, and fire lookouts. The Stevens Pass Historic District and the Naches Pass Trail are shared with the Wenatchee National Forest and these plans are expected to be joint efforts.

Protection and Interpretation

As in the past, action will be taken to avoid or mitigate any adverse effects on cultural resources resulting from other Forest activities. All actions affecting cultural resources will be implemented only after consultation with the State Historic Preservation Officer and Advisory Council on Historic Preservation and other interested parties such as American Indian tribes. As determined in the consultation process, projects may be re-designed to avoid sites, important data may be recovered, or the sites recorded to the standards of the Historic American Buildings Survey.

As a result of performing inventories not tied to specific projects, implementation of the Plan will result in an assessment of the effects of such impacts as erosion, structural decay, and vandalism on cultural resources. Measures such as stabilization or patrol will be instituted to protect the resources from these impacts.

Implementation of this Plan will result in an increase in interpretation of cultural resources. Interpretation makes their scientific, historical, aesthetic, and social values more accessible to the public. Interpretive opportunities will be identified during the process of evaluating the significance of cultural resources. Several resources, including the Stevens Pass Historic District, administrative sites and lookouts are already known to have high interpretive potential. Interpretive facilities, publications, and videos will be developed for the resources judged to have the highest level of interpretive potential.

Wilderness

The 721,718 acres of wilderness on the Mt. Baker-Snoqualmie National Forest will be managed to preserve the areas' wilderness character for the use and enjoyment of visitors, and administered in a manner consistent with the Wilderness Act of 1964.

The physical, social, and managerial settings within wilderness will be managed to meet standards set under Limits of Acceptable Change (LAC's) in the wilderness recreation spectrum (WRS). Five zones are established under the WRS, listed in the table below. Using this system, an average capacity for wilderness visitor use has been estimated. Refer to Chapter II, Chapter III, and Appendix B of the FEIS for more discussion on capacity. The acres and capacity of each zone are shown in Table 4-7.

Table 4-7
Wilderness Recreation Spectrum

Zone	Acres	RVD's
Transition	15,078	226,170
Trailed	49,015	183,806
General Trailless	457,000	114,250
Dedicated Trailless	207,930	14,945
Special Area	9,017	Not Estimated
Total	721,716	539,171

During Plan implementation, wilderness managers must seek to gain a better understanding of factors affecting the wilderness resource and the users' experience. This requires that the capacity of specific sites within the WRS classes to absorb use, be monitored to adjust capacities to meet the objectives of the Plan, and to use indirect management tools (user education) and direct management tools (mandatory permits or road closures outside wilderness) to regulate use.

Specific wilderness management direction is contained in the Forest-wide Standards and Guidelines, and NA prescriptions. The overall wilderness management goal will be to reduce or eliminate the adverse effects associated with human use, when use approaches or exceeds the established LAC. Specific management actions will be undertaken at overused sites where LAC's are now exceeded, or where the level of use or impacts is approaching levels specified for that WRS class. The Wilderness Rehabilitation Schedule is in Appendix F.

Several areas within wilderness presenting unique management problems, such as the existence of structures, RNA's, and a popular climbing route, are assigned to the special area WRS class. The intent of this class is to allow changes in management guidelines for unique situations; areas do not qualify for this class for administrative convenience in dealing with overuse. The historic lookouts at Winchester Mountain, Park Butte, Miners Ridge, Three Fingers, Green Mountain and Granite Mountain will be allowed to remain as non-conforming uses. The Coleman Glacier Climbing Route on Mt. Baker and will have special LAC's in recognition of the unique opportunities present. An interdisciplinary team will examine the recreational use of Mt. Baker and recommend further refinements in these guidelines. The USGS Glacial Research Station in the Glacier Peak Wilderness and authorized electronic sites in wilderness will continue to operate under special use permit.

Approximately 20 miles of new trail will be built within wilderness in the first decade of the Plan. This construction will be to protect the wilderness resource where overuse is occurring. In total 73 miles of new trails are proposed within the wilderness. In addition, necessary trail access will be reconstructed. Refer to the Trail resource summary in this chapter and to the Trail Management Plan in Appendix E.

There are several large areas without trail access where cross-country trips, as long as a week, are possible. They provide for a pristine wilderness experience but generally occur in extremely fragile alpine areas that are vulnerable to overuse. The intent is to manage these dedicated trailless areas to prevent overuse. Already, hiker-created trails are appearing, favorite campspots are being denuded and the opportunities for solitude are diminishing. If not managed, these cross-country routes will lead to the establishment of new trails, greatly reducing the trailless opportunity. This will be the most difficult of the wilderness classes to manage, for the manager must attempt to allow continued use in these areas without any resulting physical impacts.

Standards and Guidelines permit using some naturally occurring fires (i.e. lightning caused) to accomplish wilderness vegetation management objectives such as maintaining vegetation diversity and allowing natural processes to prevail. The parameters under which these fires will be permitted to burn will be closely monitored and suppression actions will be taken immediately on those fires that exceed prescriptions. Under these guidelines it is expected that most fires will be less than 10 acres in size through it is possible that once every 20 years or so an individual fire may approach 1000 acres in size. It is expected that approximately 75 acres per year will be burned where naturally occurring fires are used to accomplish wilderness vegetation management objectives. No areas have been identified where planned, human induced, prescribed burning is needed to modify fuel accumulations to meet wilderness fire protection needs.

The LAC's will act as monitoring guidelines for the physical and social settings within the wilderness. Periodic monitoring of these indicators will assist in preservation of the pristine attributes of wilderness.

Watershed

The watershed program on the Mt. Baker-Snoqualmie National Forest provides the means to obtain protection, maintenance, and rehabilitation of soil and water resources. It provides leadership in defining the allowable level of manipulation of the watershed environment. The watershed program provides support to other functional areas. It initiates and is responsive to changes in Forest needs, goals, and direction, and public issues. This program will be carried out through various activities that have been determined to have a high priority for accomplishment. These activities are described below.

Close involvement to provide support and advice to ground-disturbing resource management will be done to help protect the soil and water resources. The primary involvement will be with the timber program. Timing of support will be tied to the development of individual timber sales. The program will involve initial consultation on inventory and needs of the soil and water resources, through evaluation of management practices as the timber sale is completed. The level of involvement will vary depending upon the complexity of the project, with the greatest involvement occurring with complex sales that have potential for resource damage.

Consultation and involvement will also occur with management activities other than timber sales when ground-disturbing activities are proposed. These would include, but are not limited to: fisheries, fuels, recreation development, engineering, and seed orchard and fertilizer trials. Schedules for many of these resource projects are found in the appendices.

The application of Forest-wide Standards and Guidelines, Best Management Practices (site-specific), and meeting management requirements for water quality and riparian areas will ensure at least minimal protection over the entire Forest, with increased protection in some areas and within several Management Areas, such as (MA 5) Potential Wild and Scenic River, (NA 6) Skagit Wild and Scenic River, and (NA 13) Watershed, Wildlife, and Fisheries Emphasis in Riparian Areas.

Emphasis *will* be placed on the protection of riparian areas so that their integrity is maintained. This involves working with other resource personnel in the design and application of riparian area protection techniques. Training will be provided to resource personnel in riparian area design.

Inventories for watershed rehabilitation needs will be conducted first in the sensitive watersheds. Identified projects will be funded by available sources including P&M and Ky. It is expected that about 35 acres per year will be rehabilitated.

Monitoring of the effects of the Plan will be done to determine if changes are occurring to the soil and water resources. Details of the "Monitoring and Evaluation Plan" can be found in Chapter 5. The objectives of soil and water monitoring are to determine if standards and guidelines have been met, and to assess their adequacy and make changes if necessary. Monitoring will be done at several levels of intensity; the most common method will be end-product reviews, which are highly cost and time effective. More intensive monitoring will be done as needs arise. A feedback loop will be utilized to help improve the design and implementation of future projects.

Coordination regarding management concerns will continue with the involved municipalities of the municipal watersheds on the Forest. Coordination will also continue with the public basin groups, especially for the large sensitive watersheds, where there is a high potential for resource impact and serious political implications.

Air

Application of standards and guidelines, and management prescriptions (this chapter) associated with the programs and activities included in the Plan will assure that the effects on long-term air quality are positive and supportive of State and national goals to improve air quality of the Region. All management activities that generate smoke will be executed in strict conformance with the Washington State Implementation Plan, which restricts the quantity and timing of activities to minimize impacts on human health and quality of life.

The overall objective of the prescribed burning program is to limit it's application to accomplishment of those objectives that can be accomplished no other way. As an example, on-site burning of logging residue should be the last choice as a fuel treatment method. The Forest will reduce emissions from prescribed burning consistent with State goals for 1990.

The effects of the various management activities involving prescribed burning on localized air quality will be monitored based on the production of total suspended particulates (TSP) emissions. The level of TSP emission produced will be calculated annually (refer to the monitoring plan, Chapter 5) based on the fuel moisture, time of year, and total tons of available fuel consumed at the time of burning.

In addition to the forest management activities that may cause air quality impacts over the forest, the Federal Clean Air Act requires that Air Quality Related Values (AQRV's) of the forest be protected from all off Forest sources of air pollution. Monitoring activities will establish baseline conditions for these values and the Prevention of Significant Deterioration provisions of the Clean Air Act provide the mechanism for the forest to review and evaluate all planned activities that have potential to impact the AQRV's of the forest.

Wildlife

This section contains two parts: a brief description of the wildlife program; and a summary of how the wildlife resource and activities will be managed under the Plan, including descriptions of the estimated outputs.

Wildlife Program

Primary emphasis of the wildlife program will be habitat improvement and coordination with other resource management, especially timber, road, and recreation, to improve or maintain wildlife habitat.

Standards, guidelines, and prescriptions for wildlife reflect the integration of wildlife habitat requirements and other Forest activities, assuring that at least minimum acceptable habitat conditions are provided for Management Indicator Species (MIS) and their represented species. Forest-wide standards and guidelines address general wildlife management as well as protection of special habitats, particularly breeding and wintering areas, from ground-disturbing activities. Animals using these special habitats are protected from disturbance during breeding seasons and wintering periods.

The Forest Management Indicator Species are:

- Bald eagle, American peregrine falcon, gray wolf and grizzly bear (T&E wildlife habitat MIS);
- Mountain goat (mountain goat habitat MIS);
- Northern spotted owl (old-growth habitat MIS);
- Pine Marten and pileated woodpecker (mature and old-growth habitat MIS);
- Primary cavity excavators (snag and downed log MIS).

Management prescriptions with major emphasis on meeting wildlife objectives are:

- MA 11 - with emphasis on old-growth wildlife habitat, using the northern spotted owl as the MIS;
- MA 12 - with emphasis on mature and old-growth wildlife habitats, using the pine marten and pileated woodpecker as MIS;
- NA 14 - with emphasis on deer and elk winter range;
- MA 15 - with emphasis on mountain goat habitat; and

- MA 16A, 16B, 16C, and 16D - with emphasis on T&E wildlife habitat for bald eagle, grizzly bear, American peregrine falcon, and gray wolf.

The habitat and wildlife characteristics and habitat relationships described in the Management of Wildlife and Fish Habitats in Forests of Western Oregon and Washington (Brown 1985) and other available literature will be used in evaluating habitat, identifying opportunities, developing and testing habitat and use assumptions, and assessing direct, indirect, and cumulative effects.

Inventories and data gathering will be carried out to update existing information, provide baseline data for monitoring, and develop habitat relationship models. Habitat inventories, wildlife use surveys, and development of habitat analysis systems will be coordinated with WDW, USFWS, and other agencies or studies. A list of information and research needs is found at the end of Chapter 2.

Monitoring is a major part of implementing the Plan. Details of the monitoring actions for wildlife are in Chapter 5. Management indicator species and all T&E wildlife will be monitored to ensure that assumptions concerning the effects of management activities on wildlife habitat and populations are appropriate. Evaluation of estimated outputs and expected conditions in the FEIS will determine if wildlife habitat and population trends are as planned, and will form the basis for adjusting Plan direction when appropriate.

The Forest will coordinate with State, local, and other Federal agencies, basin planning groups, and other concerned groups regarding management programs and activities. Activities involving Federally threatened or endangered wildlife species will be coordinated with the USFWS.

Wildlife Activities and Outputs

The goals and objectives of the wildlife program will be carried out through various activities to provide and manage habitat, resulting in the estimated Forest-wide wildlife population levels shown in Table 4-1. The production of Wildlife-Fish User Days (WFUD's) is a secondary output related to both wildlife populations and demand for consumptive (hunting/trapping) and nonconsumptive (viewing, nature study, etc.) wildlife uses.

The following activities, described below, have a high priority for accomplishment: (1) coordination; (2) T&E wildlife habitat management; (3) big game habitat management; (4) mature and old-growth habitat, snag, and riparian area management; (5) habitat improvement; and (6) education.

Coordination. Coordination will be an on-going process to ensure that wildlife habitat needs are incorporated as appropriate into all projects. Extensive coordination of wildlife objectives and standards and guidelines with other resources will be emphasized, especially for ground-disturbing activities such as timber harvest, road construction, mining, small hydroelectric developments, and recreation developments. This includes evaluating habitat condition, quantity, and arrangement and the opportunities, effects, and mitigations relating to the proposed management activity. Coordination of wildlife Standards and Guidelines with recreational use management will be an important and growing priority, as high recreational use levels increase even further. Pre-project coordination and planning will be done as well as utilizing KV funds for post-project mitigation measures and habitat improvement.

T&E Wildlife Habitat Management. The Forest will participate in maintaining or reestablishing four nesting pairs of bald eagles (Federally threatened) to meet the "Final Pacific States Bald Eagle Recovery Plan" (1988) objectives. Assigned habitat (with the associated standards and guidelines) and improvements (where appropriate) will be carried out for one existing nest site, three recovery nest sites, communal roosts, and foraging areas. Recovery nest sites, and communal roost and foraging areas will be identified and the use of all existing and recovery areas will be monitored.

Habitat inventories will be completed for the American peregrine falcon (Federally endangered) and for the grizzly bear (Federally threatened). All important or critical habitat will be protected or improved to meet recovery objectives of the "Pacific Coast Recovery Plan for the American Peregrine Falcon" (1982) and the "Grizzly Bear Recovery Plan" (1982). Occasional and/or transient use of Forest lands by peregrine falcon and grizzly bear will be documented. Gray wolf (Federally endangered) sightings will be evaluated and consulted on with the USFWS. The Forest Plan will be modified as needed to support new recovery objectives in revisions of these recovery plans, or as new recovery plans become available.

The Forest has initiated consultation on the Forest Plan with the USD1 Fish and Wildlife Service. A biological evaluation of the effects of the Plan on threatened and endangered species is on file at the Supervisor's Office.

Big Game Habitat Management. Selected big game winter ranges will be managed to provide high quality cover and forage conditions.

The habitat capability of deer and elk winter range will increase as a result of improved winter range where it is assigned to MA 14, and where inventoried winter range overlaps with compatible MA's, particularly MA's ID, 2AB, 4, 5AB, 6, 15, and 27. In these areas, timber harvest methods will be used to develop the desired cover and forage relationships (ratio, size, and arrangement) where appropriate. About 240 acres/year of seeding and fertilization will be done to improve forage during the first decade. Road density will average no more than two miles per square mile in winter range areas. Thermal and optimal cover will be retained in MA 14.

Mountain goat populations will benefit from improved winter range where it is assigned to MA 15. In these areas, about 200 acres/year of seeding and fertilization for forage production may be done in the first decade. Prescribed burning may be used if determined to be ecologically acceptable to the specific site, beneficial to goat forage production, and compatible with the areas management prescription. Road density will average no more than two miles per square mile and no new roads will be built in Goat MR areas. Thermal and optimal cover will be retained in MA 15. Overall mountain goat habitat capability and populations are expected to decrease due to decreased thermal cover during this same period. Emphasis will be placed on inventory of actual goat use areas, determining goat populations, and investigating causes for the apparent decline in goat numbers. These activities will be done in conjunction with the Washington Department of Wildlife.

Deer, elk, and mountain goat summer ranges overlap with winter ranges in some cases, or are assigned to other resource management areas, with protection for special areas, e.g., fawning, calving, and kidding areas. A minimal level of big game summer range maintenance is provided through application of Regional harvest dispersion constraints. Summering populations of deer and elk fluctuate slightly due to the effect of Forest management activities as well as habitat conditions on off-Forest winter ranges that support 50% or more of the summering populations.

The primary emphasis of big game habitat inventories will be to update deer and elk winter range boundaries and to complete mountain goat habitat boundaries. Secondary emphasis will be on identifying summer and transition ranges and special areas, i.e., fawning, calving, and kidding areas, wallows, and travel corridors.

Mature and Old-growth Habitat, Snag, and Riparian Area Management. Old-growth and mature forests can provide habitat for the northern spotted owl, pine marten, pileated woodpecker, deer, elk, and mountain goat, depending on each wildlife species' specific old-growth habitat needs or preferences. Big game old-growth needs (thermal and optimal cover) are discussed above. Elevational requirements and vegetative type affect how much of the old growth may be suitable habitat for spotted owls. Fragmentation of the mature and old-growth habitats by timber harvest units is expected to reduce use by these animals, especially the spotted owl

At the end of the first decade, there will be about 624,660 acres of old growth habitat remaining, including large areas of old-growth in wilderness, research natural areas, dispersed recreation areas of the Alpine Lakes Area management unit, and unsuited timber lands. This acreage will decrease overall, to 535,100 acres, by the end of the fifth decade.

Spotted owl, pine marten, and pileated woodpecker populations will decline in the next five decades, due to the continuous decrease in old-growth habitat from harvesting and environmental factors such as windthrow. Populations will remain viable during this period.

Where green trees are left in timber harvest units, without dead trees also being retained, snags will be created on suitable lands to maintain at least 40 percent of the population potential of primary cavity excavators. Dead and down logs will be left in project areas, using the guides from Management of Wildlife and Fish Habitats in Forests of Western Oregon and Washington (Brown 1985) to meet Forest wide Standards and Guidelines for diversity. Existing snags and down logs and future, naturally occurring snags and logs, will be retained in MA's without timber harvest.

Management Area 13 protects and manages riparian areas important to a large number and variety of wildlife and fish species. Deer and elk habitat often occurs in these areas, as well as habitat for many mature and old-growth wildlife species. Habitat for primary cavity excavators will be managed at or above the 80% population potential level in riparian areas. Nest boxes and platforms for such species as wood duck, common loon, and osprey will be installed in riparian areas.

Habitat Improvement. Habitat improvement includes developments and habitat manipulation that improve the quantity, quality, and/or arrangement of wildlife habitat. Improvement projects to benefit wildlife are listed and scheduled in Appendix C. Habitat improvement will be designed to maintain or increase wildlife populations such as The wildlife, big game, and others. Also, habitat improvement will be used to mitigate those management activities incompatible with the wildlife species of concern in specific areas. Some projects are dependent on additional surveys and inventories to better define how and where to apply needed habitat improvement. Examples are mountain goat projects, where site-specific surveys are needed first.

Improvements include those mentioned above as well as road closures for T&E wildlife and MIS, and other appropriate developments or habitat manipulation.

Education. A relatively new and growing emphasis for the wildlife program will be the development of a public education program; its emphasis will be educating the public about opportunities on the Forest for viewing, studying and photographing wildlife and their habitats. Public interest in these activities is high and growing at a rapid rate. Cooperative efforts aimed at inventories, monitoring, and habitat enhancement and protection will be forged with a wide variety of citizen user groups.

Fish

This section summarizes the fisheries program and how the fisheries resource and activities will be managed under the Plan, including descriptions of the resulting outputs.

Fisheries Program

Maintenance, protection, mitigation or restoration, and enhancement of the fishery habitat capability will be objectives in the fishery resource area. This will be accomplished by a mixture of land allocations and standards and guidelines at the Forest Plan level, and by best management practices (BMP's) and habitat improvement capitol investment at the project level.

Anadromous fish management indicator species include chinook, coho, pink, and chum salmon, as well as steelhead and sea-run cutthroat trout. Resident fish NIS include rainbow, cutthroat, and bull trout.

One emphasis of the fishery program will be the coordination with other resource management. Of all the Forest resource activities, timber management activities and road construction, reconstruction, and operation potentially have the greatest effect (direct and cumulative) on fish and fish habitat (on and off the Forest). This fact was recognized and was addressed in the cumulative effects analysis (refer to Appendix H, in the accompanying FEIS). This analysis resulted in a method to meet water quality and riparian management requirements (MR's), expressed as a set maximum number of acres available for timber harvest, by decade, by watershed. See Table 4-18, Forest-wide Standards and Guidelines for Water and Riparian Areas, later in this chapter.

Protection, mitigation, and restoration of habitat will be a primary emphasis in the fishery program. This would include pre-project coordination and planning as well as utilizing KV funds for post-project mitigation measures and monitoring. Also, Forest Roads and Trail (FR&T) funds will be used to correct road-related damage to fish habitat.

Another resource area where the fishery program will coordinate closely with other resource management is developed recreation. Developed recreation sites on the forest are usually located close to aquatic systems; many of these systems contain one or more anadromous or resident fish species. Certain developed recreation sites or activities can impact or affect these fish populations or their habitats. Most of the impact ,or the potential for impact, is alterations or modifications of the in-channel or the adjacent riparian area conditions. Existing and potential campgrounds, boating and swimming sites, alpine ski resorts, organizational camps, and recreational residences are examples of developed recreation sites or activities that can impact the Forest fishery resources.

Another emphasis area is habitat capitol investment for anadromous and resident fish. Opportunities exist in the seven major river basins located within the Forest boundary to improve or restore either spawning or rearing habitat for salmon, sea-run trout or resident trout. Habitat improvement projects to benefit these species are listed and scheduled in Appendix C. Some of these projects improve spawning and rearing habitat, while others provide fish passage to presently unused or inaccessible areas. Most projects will benefit more than one species. Most projects require additional survey work or design before they can be implemented. To be effective (to increase the capability of Forest habitat to produce more fish), this anadromous and resident fish habitat improvement program must be a stable, multi-year program.

Under the USFS nation-wide initiative, Rise to the Future, the Forest has developed a 5 year action plan called “Catch-the-Action”. This action plan will be the major document to guide the Forest’s fishery program in implementing the fishery management portion of the Forest Plan.

Additional inventories and data information needs will be carried out to update and complete existing (baseline) data. A list of fishery data needs is found at the end of Chapter 2.

Monitoring is a major part of implementing the Plan. Details of the monitoring needs for fish and water are in Chapter 5.

The Forest will coordinate with State, local, and other Federal agencies and with the various Puget Sound Indian tribes regarding management programs, projects, and activities.

Fishery Activities and Outputs

The Forest will provide and manage habitat for anadromous and resident fish species.

Habitat capability for anadromous fish will be managed at a high production and capitol investment level. The resident fish program will also be managed at the highest capitol investment level. This is management intensity 13D.

The present estimated annual anadromous fish production (escapement and harvested fish) resulting from the habitat within the Forest boundaries is 1,093,000 adult fish. The estimated annual production of anadromous juveniles (smolts) is approximately 16,000,000. With a high capital investment in habitat restoration and/or improvement this annual value could be increased to approximately 18,000,000 smolts. It would take 5-10 years of high capital investment to reach this production level. The present annual value of the anadromous fish produced from the Forest (commercial and sport fish value) is approximately $18.9 million dollars.

The present estimated public demand on the resident fishery from within the Forest boundaries is a little over 1.1 million angler days. This use has a present annual value of a little over $4.25 million dollars.

Three fishery outputs (as mentioned in Table 4-1) will be monitored:

1. Pounds of anadromous fish commercially harvested;

2. Smolts produced (anadromous) as a result of habitat improvement;

3. WFUD's from resident sport fishery (this value is added to the wildlife WFUD value).

Vegetation

The diverse vegetative communities, successional vegetative change process and current vegetation conditions on the Forest are described in Chapter III of the FEIS associated with this Plan. In this section, brief summaries are included for the timber, vegetative diversity, forage, old growth, and threatened, endangered, and sensitive plant resources. Included are tabular and graphic displays with narrative explanation of how planned management activities will change the resource from the present to future conditions.

Timber Program

The timber program is described for the following areas:

- Timber resource land suitability classification;
- Mountain hemlock study;
- Timber program output objective;
- Potential increase in the ASQ;
- Vegetative management practices;
- Insects and disease;
- Long term sustained yield capacity;
- Timber productivity classification; and
- Present and future Forest conditions.

Timber Resource Land Suitability Classification. Table 4-8 lists land classification acres resulting from the timber resource land suitability classification process. This process is required by NFMA, 36 CFR 219.14. Appendix B in the FEIS describes, in detail, the process on this Forest. Refer to the glossary for definitions of technical terms.

Table 4-8
Land Classification 1/

Classification		Acres
1. Non-Forest land (includes water) 2/		422,086
2. Forest land		1,301,399
3. Forest land withdrawn from timber production		442,204
4. Forest land not capable of producing crops of industrial wood		0
5. Forest land physically unsuitable:		
- irreversible damage likely to occur		95,476
- not restockable within 5 years		159,739
6. Forest land - inadequate information 3/		6,700
7. Tentatively suitable forest land (item 2 minus items 3, 4, 5 and 6)		597,280
8. Forest land not appropriate for timber production 4/		250,869
- Management Requirements	81,168	
- multiple-use objectives	93,335	
- cost efficiency scheduling	76,366	
9. Unsuitable forest land (items 3, 4, 5, 6, and 8)		954,988
10. Total suitable forest land (item 2 minus item 9)		346,411
11. Total National Forest land (items 1 and 2)		1,723,485

1/ 36 CFR 219.14; or see Timber Resource Land Suitability Classification in Glossary.

2/ Includes water (17,356 acres) and forest lands developed for non-forest use (22,513 acres).

3/ Lands for which current information is inadequate to project growth or yield responses to timber management.

4/ Includes uneconomical, and not scheduled lands.

Federal regulations require that all forested lands designated not suited for timber production in the Plan be reviewed for suitability at least every ten years. Unsuitable lands may be reviewed and designated suitable for timber production due to changed conditions at any time. Such designation would require an amendment to the Plan.

Mountain Hemlock Study. Approximately 76,000 acres of forested land in the Mountain Hemlock association were classified unsuitable because of regeneration difficulty: not restockable within five years. The "Study Plan for the Determination of Suitability for Timber Management of the Mountain Hemlock Zone of the Mt. Baker-Snoqualmie National Forest" (available at the Forest or Regional Office) prescribes a study to determine what portion of these lands could be designated suitable for timber production. The study will collect information on 25 sale units of 6 to 12 acres each, with varying combinations of applied silvicultural regeneration systems and management practices. To facilitate the study, timber sale contracts will require completion of the purchaser's on-the-ground obligations within one year.

Timber Program Output Objective. Adherence to Forest management direction should assure that Plan timber production output objectives and coordination of timber management activities with other resource management objectives are achieved. Timber production areas should provide the highest levels of other desired resource values possible within timber production objectives. Forest wide Standards and Guidelines will be followed. The monitoring and evaluation process described in Chapter 5 requires reports and evaluation of how well the timber management program is meeting management direction and projected activities and outputs. Evaluation reports may include recommendations to change direction, adjust projected outputs, or amend the Plan.

The allowable sale quantity (ASQ) of 22.4 MMCF is the output objective driving the timber program for achievement of planned levels; see Tables 4-1 and the following table, 4-9. The ASQ is a limit on the quantity of timber planned for sale from suitable land for the ten-year time period specified for the Plan. The ASQ is usually expressed on an average annual basis for the Plan period, yearly amounts may be above or below the annual average limit established for the decade, as long as the decadal limit is not exceeded. Timber volume chargeable to the ASQ is specified in Forest-wide Standards and Guidelines. The timber sale volume chargeable to the ASQ must be stated in the final sale preparation package.

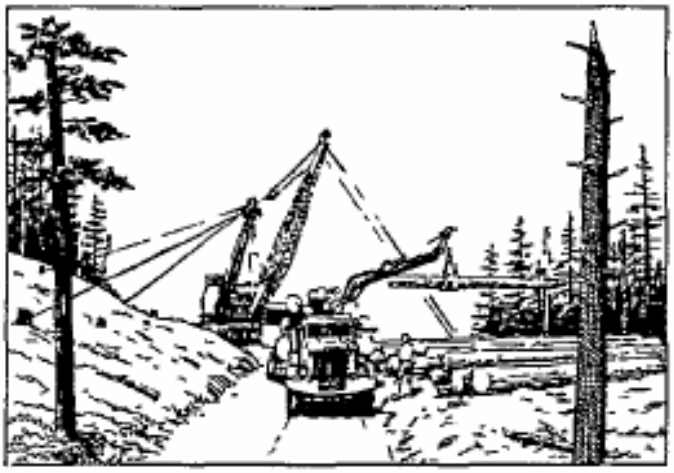


Table 4-9
Allowable Sale Quantity and Timber Sale Program Quantity
(Annual Average for First Decade)

	Allowable Sale Quantity (MNCF)	
	Sawtimber	Other Products
Regeneration harvest:		
Clearcut	22.0	
Shelterwood and seed tree		
-Preparatory cut	0	
-Seed cut	0	
-Removal cut	0	
Selection	0	
Intermediate harvest:		
Commercial thinning	0.4	
Salvage/sanitation	0	
Total	22.4	

	Additional Sales 1/ (MMCF)	
	Sawtimber	Other Products
Total for All Harvest Methods	1.3	1.8

Timber Program Output Objectives		
	MMCF	MMBF 2/
Allowable Sale Quantity	22.4	108
Timber Sale Program Quantity 3/	25.5	122.1

1/ Includes nonchargeable volumes from suitable and/or unsuitable lands. Other products is an estimate of fuelwood based on a percentage of unutilized material associated with regeneration harvest.

2/ Scribner Decimal C Board Foot Measure.

3/ Total of allowable sale quantity and additional sales.

The ASQ may be estimated 1/ as 96.2 percent of the total net timber volume meeting Forest utilization standards to be sold from suitable land within the boundary of a regeneration harvested clearcut, or within the boundary where all timber is removed in other activities, e.g. clearing for road construction. All live or green volume in commercial thinning sales and salvage sales outside regeneration harvest units are in management areas allowing scheduled timber harvest. This volume is also chargeable to the ASQ.

Control of the ASQ timber quantity is expressed in cubic foot measure, and harvested acres, for the total Plan period and may vary from year to year. Conversion to board feet measure in this Plan is 4.79 board feet per cubic foot unless otherwise specified.

Projected annual outputs and activities necessary to meet the ASQ planned level are included in Table 4-1; included are miles of road construction and reconstruction, acres of timber harvested by clearcut and commercial thinning, acres of reforestation, and acres of timber stand improvement. Table 4-10 lists average annual acres of vegetation management practices scheduled in the first decade. Road and bridge construction and reconstruction schedules appear in Appendices A and B. The latter includes capital improvements in arterial and collector roads and bridges. Appendix A, Timber Program Activity Schedule, lists timber purchaser road construction and reconstruction scheduled for each timber sale.

Approximately 30% of the planned ASQ of 22.4 MMCF/yr (107.5 MMBF/yr) is produced from Management Areas other than MA 17, where the production of wood fiber is not the primary objective of management. The acres receiving vegetative management, and the amount of wood fiber produced, by management and other identifiers, will be tracked in Forest Plan monitoring (see Chapter 5, Monitoring Plan).

The ASQ output requires a substantial investment in precommercial thinning, 996 acres per year, as shown in Table 4-10. If full achievement of this intensive forestry practice is not possible due to lack of funding or other reasons, or if a higher level of achievement occurs, it may be necessary to adjust the ASQ accordingly. Approximately 2,800 acres of precommercial thinning per year has been accomplished in recent years. The first two decades of the Plan average 1,993 acres per year.

1/ This estimate was calculated as follows: (0.301 NCF per acre of net salvable dead volume per acre determined in 1976 Forest inventory) divided by (mean net live or green MCF volume per acre of existing pole and larger timber condition classes in suitable lands plus 0.301 MCF per acre of net salvable dead volume per acre) x 100 = 3.8%; 100% - 3.8% = 96.2% net live or green volume per acre. “Timber to be sold is significant in this estimating guideline; any net timber volume meeting Forest utilization standards left to benefit wildlife, or for other purposes would be excluded from the 96.2% multiplier.

Table 4-10
Vegetation Management Practices
(Annual Average in First Decade for Suitable Lands)

Practice 1/	Acres
Regeneration Harvest	
Clearcut	2,865
Shelterwood and seed tree: 2/	
-Preparatory cut	0
-Seed cut	0
-Removal cut	0
Selection 2/	0
Intermediate Harvest	
Commercial thinning	200
Salvage/sanitation	84
Timber Stand Improvement	996
Reforestation	
Planting	2,239
Natural Stocking	626

1/ Regeneration and Intermediate Harvest acres by sale and Ranger District are listed in the Ten-Year Timber Sale Schedule, Appendix A of this document.

2/ Miscellaneous amounts of these regeneration harvests may occur.

If annual monitoring determines that the precommercial thinning acres are plus or minus 10 percent from 996 acres per year, the ASQ may be adjusted based on additional analysis. The Plan would be amended to portray the new ASQ.

The average annual ASQ and additional sales (including fuelwood) planned for annual sale in the first decade is the timber sale program quantity (TSPQ),
25.5 NMCF (122.1 NMBF) as shown in Table 4-9. The timber program activity schedule in Appendix A lists, by each Ranger District, the proposed timber sales for the first three years (FY 1990-92) and a proposed pool of projects thereafter. Listed for each scheduled sale are: 1) sale name, 2) description of legal location, 3) total acres for each harvest method, 4) total volume, 5) miles of road construction and reconstruction, 6) the Management Areas in which the sale is located, and 7) other pertinent remarks.

Some sales require five or more years of preparation between a probable sale area and the sale date. The ten-year timber sale schedule is based on current conditions and information available. Conditions and new information at any time may eliminate, delay, or revise a scheduled sale. The timber sale schedule may be modified during the implementation of this Plan. The degree of modification will determine whether the Plan needs amendment, in accordance with the required processes. (Refer to Chapter 5, Amendment and Revision.) Final section locations are undetermined for some of these sales.

Vegetative Management Practices. Table 4-10 lists the average annual acres of vegetation management practices scheduled for Decade 1. Planning projections in FORPLAN were made using clearcutting as the only regeneration harvest cutting method. Clearcutting is the most commonly appropriate harvest cutting method in this Forest. Appendix F of the FEIS describes the criteria and rationale for selection of the harvest cutting method.

Miscellaneous amounts of suitable acres (less than 50 per year) may be harvested using the shelterwood or selection system. When this occurs, it will reduce the number of acres being harvested via clearcuts. Salvage sales are scheduled on 84 acres per year. Regeneration harvest clearcut acres calculated by FORPLAN are 2,865 acres per year.

Scheduled sales average more volume per acre than projected regeneration harvest acres.

This difference in volume per acre is attributable to specific sale areas versus Forest-wide average yield tables; the latter are net green timber volume versus net green and dead timber volume in scheduled sale estimates. Deductions of 3% were made from FORPLAN timber yield tables to aid in maintaining primary cavity excavator populations at 40% of their biological potential. In addition, the clearcut acres scheduled for a sale are those shown on the sale area map, while the volume shown for those clearcut acres includes volume from acres of road construction and reconstruction clearing (and as noted above, miles of scheduled road construction are almost twice the miles projected). The timber sale contract differentiates between acres of harvest in clearcuts and road construction.

Commercial thinning harvest (HTH) is a prescribed practice in Forest-wide and management area standards and guidelines. A total of 200 acres per year of HTH sales have been scheduled in the first decade (Table 4-11). The structure of the Forest's model precluded HTH outputs from FORPLAN until later decades. First decade HTH acres scheduled were planned outside the FORPLAN model. The number of acres of HTH were estimated for Decades 2, 3, 4, and 5. Dead and defective, standing and down tree habitat needs will be provided for in commercial timber harvest areas.

Annual reforestation of 2,865 acres (Table 4-11) will be required to restock regeneration cuts. Planting will average 2,239 acres per year and natural stocking 626 acres per year in the first decade.

Planned acres of precommercial thinning (timber stand improvement) and the relationship of accomplishment to the ASQ has been reviewed above. Other timber stand improvement practices prescribed in standards and guidelines will be conducted as necessary to meet the timber management objectives of the applicable management area.

Fertilization to increase timber yield is one practice that will be used to the extent practical. The yield increase will not be an "earned" harvest, as in the case of precommercial thinning. As more field projects are conducted and research continues, the gain from fertilization may be included in yield tables used in the next Plan revision.

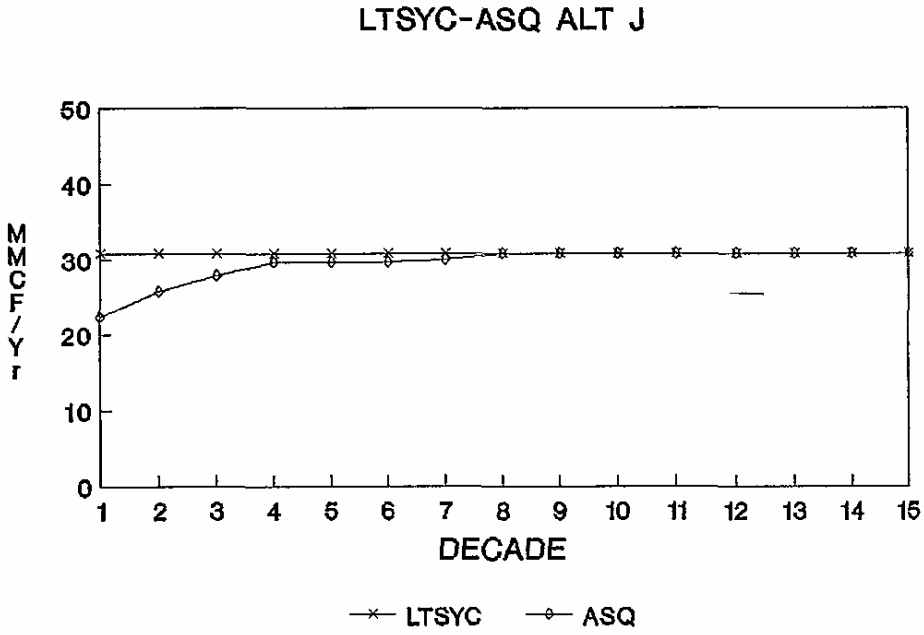
All of the above vegetative management practices may also occur on acres identified as unsuitable for timber production unless otherwise noted in the management area standards and guidelines. Trees may be cut or removed for the following reasons, provided that Forest-wide Standards and Guidelines, and the management direction for the area are achieved:

- Salvage trees or stands killed or substantially damaged by fire, windthrow, or other catastrophe;
- Control the spread of insect or disease outbreaks;
- Conduct research;
- Provide for the safety of Forest users (this includes hazard tree removal in camp and picnic grounds, in administrative sites, and along roads open to the public;
- Maintain or enhance fish and wildlife habitats;
- Improve the visual resource by opening scenic vistas or by improving visual variety;
- Construct new facilities such as roads, trails, administrative facilities, recreation facilities, and so forth.

Insects and Disease. Insects and disease on this Forest have all been associated with the vegetation resource. During the interdisciplinary review process used for developing project plans for timber sales or other vegetation-disturbing activities, insects and diseases are considered. The review process identifies specific actions that must be taken to minimize their effect on the vegetative resource or their effects on other resources or
resource issues.

Long Term Sustained Yield Capacity (LTSYC). LTSVC was calculated by the FORPLAN model using beginning inventory volume, 1,805.6 MMCF, existing timber condition classes, and managed timber yield intensities assigned to analysis areas in suitable lands, producing a LTSYC of 30.4 NMCF/Year. Figure 4-2 displays LTSYC and ASQ over the 15-decade planning horizon.

Figure 4-2
ASQ and LTSYC - 15 Decades



LTSYC - 30.4 MMCF

Timber Productivity Classification. Table 4-11 shows suitable and unsuitable forested lands by potential growth productivity classes. Sixty-six percent of suitable lands fall into the 85-119 and 119-164 CF/ac/yr potential growth classes. The Max Timber Benchmark LTSYC (119 CF/ac/yr) and Biological Potential Benchmark LTSYC (120 CF/ac/yr) reflect the approximate mean productivity of these two classes. The Plan produces an estimated ASQ in the fifth decade of 85.9 CF/ac/yr, and LTSYC of 87.8 CF/ac/yr (beginning in the sixth decade) from suitable lands. This difference in yield reflects timber production foregone to provide multiple-use opportunities and outputs for other resources and resource uses.

Present and Future Forest Conditions. Table 4-12 shows a tabular history of volume, growth, mortality, rotation age, and age class acres of forested land at the present time and projected into the 15th. decade.

The footnotes clarify acres used and sources of volume estimates. Growing stock volume is live timber 9 inches DBH and greater at present, and live timber 7 inches DBH and greater in the future. Live cull is volume from live trees that were less than 25% sound when inventoried. Rotation ages include two years of lag time to reforest regeneration harvest areas, except four years lag time is included in the natural final harvest intensity (MA 17A) rotations.

Table 4-11
Timber Productivity Classification 1/

Potential Growth (CF/Ac/Yr)	Suitable Lands	Unsuitable Lands
	..…..……..Thousand Acres……..	
Less than 20	0	238
20-49	15	32
50-84	65	133
85-119	118	248
120-164	109	226
165-224	38	76
225+	1	2
Total	346	955

1/ Includes all forest land (See Item 2, Table 4-8).

Timber productivity classification calculated from the 1976 Forest Inventory measurements was unsatisfactory. The above productivity classification was calculated using Forest Inventory plot data and following the process used to calculate the site index of productivity used in developing managed timber yield tables (1984). This process is documented in Forest Planning Records.

By Decade 15, the suitable lands are well distributed in age classes 10 to 200+. There are acres in the present 30-, 40-, 50-, and 60-year age classes but they are not shown because of the age class grouping in mapping and modeling. These acres are grouped into the 20- and 70-year age classes, mostly in the former. Future Forest inventories should better define the younger age classes. The most striking change is the reduction in the 200+ age class. The future growing stock volume is sufficient to continue the LTSYC on beyond the 15-decade horizon indefinitely.

Table 4-12
Present and Future Forest Conditions

Forest Component	Unit of Measure	Forested Land: Suitable	Forested Land: Unsuitable 1/
Present Forest			
Growing Stock 2/	MMCF	1,859.0	4664.56
	MMBF	8,908.4	22,343.0
Live Cull 3/	MMCF	54.3	104.3
	MMBF	260.1	672.0
Salvable Dead 4/	MMCF	79.7	206.0
	MMBF	381.7	986.0
Annual Net Growth 5/	MMCF	16.2	42.2
	MMBF	77.6	202.0
Annual Mortality 6/	MMCF	10.9	28.2
	MMBF	52.4	135.3
Future Forest			
Growing Stock	MMCF	1,612.1 7/	
Annual Net Growth	MMCF	34.8 7/	
Rotation Age	Years	60 8/ to 120	

Age Class Distribution Acres On Suitable Lands 9/	Suitable Forested Land: Age Class	Present (acres)	Future (acres)
	10	46,049	32,310
	20	49,810	32,310
	30	0	32,310
	40	0	32,310
	50	0	32,310
	60	0	32,310
	70	17,560	34,091
	80	20,594	27,512
	90	0	27,839
	100	47,322	24,265
	110	0	11,296
	120	0	10,412
	130	0	4,264
	140	9,932	7,320
	150	14,326	688
	200+	140,817	4,865

Footnotes for Table 4-12 are listed on the following page.

1/ Volume estimates were made for 684,273 acres having a productivity of 20 CF or more per acre per year, and acres of poles and larger size t4mber; this includes pole and larger material from table 4-8, items 3,5,and 8.

2/ Suitable volume: Calculated at the midpoint of Decade 1 before harvest using empirical yield tables for existing forest condition classes selected as suitable acres. In FORPLAN report F10.6, this growing stock volume in suitable acres is 1,805.6 NMCF which is 3% less than shown above; the yield tables in FORPLAN are reduced 3% to maintain the population of primary cavity excavators at 40% of potential.

3/ Suitable and unsuitable volume: Used National Forest Inventory Statistics for the Mt. Baker-Snoqualmie National Forest, 1976 Forest Inventory, Table 4, Nay 20, 1978, unpublished. Sound cull plus rotten cull per acre for acres of pole and larger timber.

4/ Suitable and unsuitable volume: Used 1,441 board feet/acre determined from reference cited in 3/ above, Table 3 (corrected), and multiplied times acres of pole and larger timber. A conversion of 4.79 board feet per CF was used.

5/ Suitable and unsuitable volume: Used the first decade growth from FORPLAN Report F1OA for suitable volume. Unsuitable volume used average growth rate of 61.64 CF/ac/yr (poles and larger material) from FORPLAN report F1OA, multiplied by forested acres, pole and larger material.

6/ Suitable and unsuitable volume: Used 41.284 CF/acre/year determined from reference cited in 3/ above, Table 5 (corrected), and multiplied times acres of pole arid larger timber.

7/ Growing stock volume is at the midpoint of Decade IS before harvest and growth is from Decade 14 to 15 of the planning horizon as reported in FORPLAN.

8/ A range of rotation ages for regenerated stands on lands with timber emphasis, Management Area 17.

9/ From FORPLAN run; present and future are at the start of the first decade and the mid-point of the 15th decade, before harvest.

Forage

Forage for grazing animals is available, to some degree, in all vegetation types. Forage for wildlife is included in the wildlife resource summary. The range-permitted grazing projection in Table 4-1 is 1,000 animal unit months per year. This projection reflects portions of two sheep grazing allotments on the Forest; neither permit has been used in the past five years. Transitory range is available - the grass-forb plant succession stage lasts two to five years -in clearcut harvest units. The demand for transitory range has been low to nonexistent since an unsuccessful temporary permit to graze sheep in 1978.

Old Growth

Old growth existing on the Forest has been functionally defined for analysis purposes in this plan as existing mature large sawtimber (51 in the R2MAP Forest Planning Data Base) before harvest in Decade 1. Existing old growth averages 240 years of age on the northern end of the Forest, and 260 years on the southern end of the Forest. Old growth as defined here may or may not meet the definition in the Region 6 Regional Guide. An old growth inventory is necessary to determine this relationship. This inventory is scheduled to begin in 1990.

Old growth on the Forest presently totals 643,538 acres. There are 232,500 acres of old growth in wilderness; 134,400 acres in other Forest lands unsuitable for timber production;]35,821 acres in Forest lands not appropriate for timber production; and 140,817 acres in lands suitable for timber production.

There are 140,817 acres of old growth *in* suitable acres in the Plan. In the first decade, 18,879 acres of this suitable old growth will be harvested. By the end of Decade 5 (50 years), only 32,373 acres will remain in suitable lands; however, a total of 535,094 acres will remain Forest-wide.

The management of old growth on the Forest will focus on the protection and maintenance of older forest stands allocated for MR wildlife habitat areas, and in other compatible management areas. Research and development of management guidelines for old growth will be an emphasis in the research branch of the Forest Service, and in cooperative Forest Service - Washington State Department of Wildlife studies. Experimental silvicultural treatments may be developed from this research. A major question posed will be whether it is possible to manage for old-growth forest, of for the habitat components required by certain mature and old-growth forest dependant species.

An up-to-date inventory of older forest stands, with data on horizontal and vertical structure, plant composition, longterm productivity, and special habitat components will be completed. Information on fungal, invertebrate, and herptile components, neglected areas of old-growth forest emphasis, will be collected.

Needs and methods for connecting “islands” of old-growth habitat with each other via travel corridors containing protective cover and feeding habitat will be identified and better defined.

Diversity Management and Long-term Productivity

Diversity will be approached from the perspective of long-term forest productivity, rather than as an issue related to individual resource areas. Silviculturalists, fuels managers, ecologists, botanists, wildlife biologists and others will work in concert to achieve mutual objectives for diversity and long-term productivity. Prescriptions will be integrated resource plans for maintaining diversity and achieving the management objectives assigned to an area.

Diversity management will begin with maintaining soil productivity over time, include management of dead and down large and small woody materials, standing dead and defective trees, maintaining viable populations and distributions of native and desired non-native plant and animal species, and maintaining all natural communities on the Forest. Special emphasis will be placed on management of threatened, endangered and sensitive species and fragile and scarce communities. Minimum levels of these types of diversity will be maintained in all parts of the Forest. Diversity will be maintained at the highest possible levels compatible with other resource objectives in all areas.

The effects of fragmentation of natural communities, and means of maintaining fully viable areas of these communities, particularly old growth, and connecting habitat areas will be explored and management guidelines validated and improved.

Threatened, Endangered, and Sensitive Plants

No federally-listed threatened or endangered plant species have been found on the Forest. Two plant species, suspected but not known to occur on the Forest, are Category 2 candidates for Federal listing. They are Calamagrostis crassiglumis and Castilleja cryptantha.

Twenty-six species from the Region 6 Forest Service list of Sensitive Plants are known to occur on the Forest, and another fourteen are suspected to occur (See Table 4-13). Sensitive species are not protected under the Endangered Species Act. However, Forest Service policy requires that these plants be managed to maintain viable populations and avoid a need for placing them on the Federal list.

The list of plant species will continue to change, as inventories produce more information on the occurrence, numbers, and distributions of species. Species may be removed from the list if additional information shows that they are not as rare as once thought, or as management plans are developed to ensure their viability. Species may also be added to the list as they are discovered to occur on the Forest, or if they are more rare than presently thought.

Table 4-13

Region 6 Forest Service
Sensitive Plant Species On The
Mt. Baker-Snoqualmie National Forest
(June 1989)

Species Known to Occur on the Forest:

Scientific Name	State Category
ASTER SIBIRICUS VAR MERITUS	Sensitive
BOTRYCHIUM LANCEOLATUM	Sensitive
BOTRYCHIUM LUNARIA	Sensitive
BOTRYCHIUM MINGANENSE	Sensitive
BOTRYCHIUM MONTANUM	Sensitive
BOTRYCHIUM PINNATUM	Sensitive
CAMPANULA LASIOCARPA	Sensitive
CAREX BUXBAUMII	Sensitive
CAREX PAUCIFLORA	Sensitive
CAREX SCIRPOIDEA VAR SCIRPOIDEA	Sensitive
CAREX STYLOSA	Sensitive
CHAENACTIS THOMPSONII	Sensitive
COPTIS ASPLENIFOLIA	Sensitive
DODECATHEON PULCHELLUM VAR WATSONII	Sensitive
DRYAS DRUMMONDII	Sensitive
FRITILLARIA CAMSCHATCENSIS	Sensitive
GENTIANA DOUGLASIANA	Sensitive
GENTIANA GLAUCA	Sensitive
LYCOPODIUM DENDROIDEUM	Sensitive
PEDICULARIS RAINIERENSIS	Sensitive
PLATANTHERA CHORISIANA	Threatened
PLATANTHERA OBTUSATA	Sensitive
PLEURICOSPORA FIMBRIOLATA	Sensitive
RANUNCULUS COOLEYAE	Sensitive
SAXIFRAGA DEBILIS	Sensitive
SAXIFRAGA INTEGRIFOLIA VAR APETALA	Sensitive

Species Suspected to Occur on the Forest:

Scientific Name	State Status
AGOSERIS ELATA (Nutt) Greene	Sensitive
CALAMAGRSTIS CRASSIGLUMUS Thrub	Threatened
CAREX COMOSA Boott	Sensitive
CAREX MACROCHAETA C.A. Meyer	Sensitive
CAREX SAXATILIS L. Var. Major Olney	Sensitive
CASSIOPE LYCOPODIOIDES (Pall) D. Don SSP. CRISTAPILOSA Calder and Taylor	Sensitive
CASTILLEJA CRYPTANTHA Pennell & G. N. Jones	Threatened
CIMICIFUGA ELATA Nutt in T&G	Sensitive
DRABA AUREA Vahl in Hornem	Sensitive
LOBELLA DORTMANNA L.	Sensitive
LOISELEURIA PROCUMBENS (L.) Desv.	Sensitive
LUZULA ARCUATA (Wahlenb.) WahlenB	Sensitive
MICROSERIS BOREALIS (Bong.) Schultz-Bip.	Sensitive
SAXIFRAGA CERNUA L.	Sensitive

The emphasis of this program will be on the inventory of proposed project areas, reserved areas, and areas where vegetative management is precluded or minimal for threatened, endangered and sensitive (T&E&S) plants. A data base of sensitive plant locations will be developed, and information on habitat requirements, range, and distribution of these plants will be developed.

This information will be used to develop species management guides for all of these species over the decade, with priority given to those plants which are federally-listed, candidates for federal listing, or likely to occur in areas where management activities which remove or affect vegetation are proposed. Threats to species survival will be identified in these plans. Protected populations or subpopulations will be identified, across a species range on the Forest, and, where appropriate, experimental populations will be identified. These experimental populations will be used to increase our understanding of the effects of management activities on a species. Permitted and restricted activities at sites of protected populations will be identified in the management guides, as will plans for monitoring protected and experimental populations.

All areas where projects or activities are proposed which may affect T&E&S plants will be inventoried prior to management decisions. Botanical areas, RNA's, wilderness areas, MR mature and old-growth areas and other "protected" habitats will also be inventoried, to identify T&E&S plant populations.

Inventories, management guides and monitoring plans will all be coordinated with the Washington Department of Natural Resources Natural Heritage Plant Program, the Forest Service Regional Office, and adjacent Forests. Where federally-listed plants are involved, activities will be coordinated with the 1.3.5.0.1. Fish and Wildlife Service.

Research Natural Areas

Research natural areas (RNA's) are tracts of land set aside as examples of typical or unique natural ecosystems or habitats. They are preserved in as near a natural state as possible. Their main purposes are to provide: baseline areas against which effects of human activities in similar areas can be measured; sites for study of natural processes in undisturbed ecosystems; and gene pool reserves for plant and animal species, especially those that are classified as threatened, endangered, and sensitive.

This section describes the established and recommended RNA's on the Forest. Established RNA's

The Mt. Baker-Snoqualmie National Forest has three established RNA's. Lake Twenty-two RNA, on the Darrington Ranger District, is 790 acres in size and represents a western redcedar/western hemlock forest with subalpine lake. It was established in 1947. Heavy recreation use is well established and will be allowed to continue as long as it does not degrade the RNA quality for which it was established. However, while recreation use will be allowed, it will not be encouraged. Only minor reconstruction or rerouting of existing trails will be permitted, provided it does not compromise the purposes of the RNA.

The Long Creek RNA is located two miles northeast of Lake Twenty-Two RNA, within the Boulder River Wilderness on the Darrington Ranger District. It is 640 acres in size and was established in 1947 to represent western hemlock forests and climax red alder forest.

The North Fork of the Nooksack River RNA on the Mt. Baker Ranger District is 1,407 acres in size and represents Douglas-fir and western hemlock forests. It was established in 1937.

All three existing RNA's have been proposed as potential National Nature Landmarks.

No new trail or facility construction will be allowed in any of these areas. Recreation use will be allowed, but not encouraged.

Recommended RNA's

Five candidate areas, identified by the Regional Research Natural Area Committee, are recommended for designation as RNA's in this Plan. Designation occurs after an establishment report is prepared and approved by the Chief of the Forest Service.

Table 4-14 is a summary description of the recommended RNA's. Four of these are located partially or totally within wilderness. In these cases, the most restrictive management prescription (wilderness intensity or RNA) shall be applied in those portions of the RNA that fall within wilderness.

Table 4-14
Recommended Research Natural Areas

Area Name	Acres	Location	Ecosystem
North Fork Nooksack Addition	2,460	Mt. Baker Wilderness, Mt. Baker Ranger District	Douglas-fir with 75-year-old burn, wide array of sub-alpine communities.
Lily Lake	800	Clearwater Wilderness, White River Ranger District	High elevation mountain hemlock/ Pacific silver fir forest, typical mid- to high-elevation subalpine lake.
Perry Creek	2,066	Darrington Ranger District	Unique assemblage of rare fern species, also has Alaska cedar (in stand with mountain hemlock and sub-alpine fir, and heather/huckleberry community).
Green Mountain	2,060	80% within Glacier Peak Wilderness, Darrington Ranger District	Subalpine parkland mosaic, heather/ huckleberry community, and sub-alpine lush herbaceous communities.
Chowder Ridge	1,920	Mt. Baker Wilderness, Mt. Baker Ranger District	Alpine community mosaic with Krummholz tree groups.

Minerals

This section contains: (1) a brief description of the minerals management program; and (2) a summary of how the mineral resources and activities will be managed under the Plan.

Minerals Management Program

Management of mineral resource activities will continue to be largely responsive in nature. The Forest will use the Plan's standards and guidelines to direct mineral activities to insure they are conducted to the extent possible in a manner that is as compatible with other resource objectives. Even though the Forest Service's objective is to ensure that no unnecessary or undue degradation of the environment occurs, extreme care will be used to ensure that environmental protective stipulations and reclamation objectives are reasonable, enforceable, cost effective, and successful.

At times, mineral activities will be incompatible with management objectives identified in this Plan. In these situations, reasonable reclamation objectives will be established and ensured by adequate bonding, but the activity will be encouraged.

Within withdrawn areas, valid existing rights must be confirmed before approving any mineral development activities. However, once confirmed, the Forest will facilitate and encourage any mineral development activities authorized by those rights. In many withdrawn areas, prospecting activities can be conducted in a manner compatible with the purposes of the withdrawal. Such activities provide no rights to develop the mineral resources; when proposed, they will be encouraged. The results of any such prospecting will be used when reviewing withdrawals as required by the Federal Land Policy and Management Act of 1976 (FLPMA). If mineral resources are discovered and mineral development is determined to be the highest and best use for an area that is presently withdrawn, the withdrawal may be revoked.

As with other resources, monitoring actions will be an important part of the minerals management program. Through monitoring, the processing of mineral management activities can be made more efficient; reclamation techniques can be made more successful; and objectives can be made more achievable. The actual effects that mineral activities have on sensitive resources will also be monitored and evaluated.

As industry's ability to conduct activities in sensitive areas increases, management objectives which tend to restrict mineral-related activities may be modified. In addition, the mineral supply and demand situation will be monitored and newly acquired mineral resource information will be evaluated. If this information justifies changes, the Forest Plan will be appropriately modified or amended.

Mineral Resource Activities

The Plan provides for mineral resource activities to occur, with minimal to moderate restrictions, on 506,923 acres or 29% of the total Forest acres. Under this Plan, the amount of area designated as wilderness will not be changed; however, 85,613 acres (less than 5% of the total Forest area) will be recommended for withdrawl from mineral entry for reasons other than wilderness. An additional 409,230 acres (24% of the total Forest area) will be managed under highly sensitive management prescriptions.

Table 4-15 shows more specifically how these prescriptions affect areas identified as having potential for the occurrence of locatable, nonenergy mineral resources, and areas identified as being "prospectively valuable" for energy mineral resources.

Table 4-15
Effects of Withdrawal and Highly Restrictive Management
On Mineral Resource Potential Areas

Identified Mineral Resource Potential Area	Portion of That Area Withdrawn from Mineral Entry by Prescription 1/	Portion of That Area Managed by Highly Restrictive Management Prescriptions
Area identified as having a "high" and "moderate" locatable mineral potential	Less than 1% (1,774 acres)	35% (51,613 acres)
Area identified as being "prospectively valuable" for oil and gas resources	Less than 0.5% (84 acres)	36% (6,547 acres)
Area identified as being "prospectively valuable" for geothermal resources	Less than 6% (68,613 acres)	25% (301,358 acres)
Area identified as being "prospectively valuable" for coal resources	Less than 5% (5,491 acres)	34% (36,999 acres)

1/ Does not include wilderness.

It is assumed that there will be at least a continuing interest and possibly an increasing interest in the mineral resources on the Mt. Baker-Snoqualmie National Forest. Because of all the variables having influence on mineral activity, the actual amount of activity may significantly vary from that which has been predicted.

Landownership and Uses

Land Classification and Adjustment

The goal of landownership adjustment is to achieve an ownership pattern that best accommodates the land and resource objectives of the Plan. To meet these goals, the Forest will engage in approximately 221,000 acres of land exchange in the first decade. Of this, 67,000 acres is scheduled to occur in the next three years in six exchanges: (1) DNR #3; (2) City of Tacoma; (3) Snohomish PUD; (4) Champion International; (5) Weyerhaeuser; and (6) Murray Pacific.

Landownership guidance is provided in each management prescription. Overall priorities for landownership adjustments are: (1) those that make possible improved resource management; and (2) those that increase management efficiency and reduce management costs.

Additional guidance is in the "Alpine Lakes Management Plan" and "Skagit River Management Plan"

The "Landownership Classification and Adjustment Plan," based on the guidance in the prescriptions, may be found in Appendix G.

Special Land Uses

The major special land uses on the Forest are utility corridors and small hydroelectric proposals.

Existing utility corridors would be continued. Capacity would be increased to the degree feasible to accommodate increased energy needs (e.g., 115 kv line might be increased to 230 kv). One potential new corridor is identified. This corridor would be located in the area of Tacoma Pass to Pyramid Peak running northwesterly toward the Puget Sound area.

The number of small hydroelectric proposals for the Plan are estimated at about 109. Of these proposals, 16 appear to be precluded from development by the management prescriptions. Another 64 proposals have the potential to be compatible with management prescriptions, and 29 proposals will be further evaluated for development potential and the ability to meet management prescriptions and standards and guidelines. Five to ten of these proposals could be expected to reach the Federal Energy Regulatory Commission (FERC) license stage.

Roads

The goal of road management in the Plan is to provide and manage the road system to serve the long-term resource needs and objectives of the management areas. The prescriptions involved in the Plan are intended to maintain a viable transportation system in accordance with road management objectives, which will include identification of anticipated traffic needs, road closures needed for resource management, and identification and correction of road and bridge deficiencies. As funding levels vary, primary priority will be given to resource management and protection, with secondary priority given to user convenience.

The proposed management for all existing Forest Development Roads is documented in the "Forest Road Management Plan," located in the Forest Supervisor's Office. This includes the road management objective for each arterial and collector road, and for individual, or categories of local roads. The road management objective defines the anticipated use of the road, the existing and future road standards, the traffic service and road maintenance level, and any planned closures. This document, along with the bridge inventory and base map of all existing roads comprise the Forest Development Transportation Plan required by NFMA.

The road design, construction, and reconstruction process found in Forest Service Handbook (FSH) 7709 ensures that all new roads are designed and operated to standards that are responsive to the prescribed resource objectives.

Ultimately, the road system will total 3,411 miles, a 18% increase over the present mileage. A total of 134 miles or 26 percent of this new mileage will be completed within the first decade. Of the 511 miles of new road expected to result from the implementation of the Plan, 496 miles will be locals, and 15 miles will be arterials/collectors. The average annual construction rate will be 12.6 miles for locals, and 0.8 miles for arterials/collectors through the first decade.

About 25 miles of existing roads, located in areas assigned to unroaded dispersed recreation, will be permanently closed. Roads permanently closed by the Plan include Elliot Creek, Deer Creek Pass, the end of North Fork Skykomish River, Crystal Creek, and others.

Approximately 34% of the road system will be open to passenger vehicles (maintenance levels 3-5), and 49% will be available for high clearance vehicles (maintenance level 2). The remaining 17% will be temporarily closed (maintenance level 1) during the first decade.

Some roads in deer, elk, and goat wintering habitat and T & E species habitat will be closed during the use season to reduce harassment. Needs for roads to be open will be examined closely to minimize open road density and wildlife harassment whenever possible.

Road construction and reconstruction miles scheduled (Appendices A and B) differ significantly from miles projected in Table 4-1. Timber purchaser road construction projected, 12.6 miles per year, is approximately 44 percent of the scheduled 28.8 miles per year. Possible explanations are: the Ranger Districts are scheduling more sales in roadless areas than FORPLAN projected in the first decade; the model coefficients used to project road construction miles are in error; or the Ranger Districts are overestimating the miles of road construction that will actually be necessary to service the sales.

Road reconstruction projected at 57.7 miles per year, is approximately 144 percent of the scheduled 40.1 miles per year in the first decade. This difference is understandable because reconstruction is dependent on road condition from road use and damage from unpredictable weather events, resulting in flooding and "washout" of roadbeds and drainage structures. Also, road reconstruction projects vary from minor improvements to major road relocation.

Road maintenance will be accomplished on all National Forest system roads each year to the prescribed service level (see Traffic Service Levels on Table 4-16).

It is estimated that 3,034 miles of National Forest roads will be maintained each year during the first decade.

During the first Decade, approximately 70 miles of road will be built into unroaded areas released by the Washington State Wilderness Act of 1984. Refer to Appendix A, “Ten-Year Timber Sale Action Plan,” for further information.

While the majority of the arterial/collector road system is established, roads and bridges do periodically wear out and require reconstruction. See Appendix B for the proposed road construction/reconstruction schedules.

The Plan will not preclude the construction of the Naches Pass Road. This project would be subject to a site-specific environmental analysis, should it be proposed.

A summary of the service levels for the arterial/collector system on each Ranger District is shown below, Table 4-16. The service levels are defined on the first page of the table.

Traffic Service Levels

	Service Level A	Service level B	Service Level C	Service Level D
Flow	Free flowing with adeovate passing facilities.	Congested during heavy traffic such as during logging *or* recreation activities.	Interrupted by limited passing facilities, or slowed by the road condition. backing to pass.	Flow is Slow or may be blocked by an activity. Two-way traffic is difficult, may require
Volumes	Uncontrolled. Will accommodate the experted traffic volumes.	Occasionally controlled during heavy use periods.	Erractic. Frequently controlled as capacity is reached. associated with the single purpose.	Intermittent and usually controlled. Volume limited to that
Vehicle Types	Mixed. Includes the critical vehicle and all vehicles normally found on public roads.	Mixed. Includes the critical vehicle and all vehicles normally found on public roads. use may be controlled to minimize conflicts between vehicle types.	Controlled mix. Accommodates all vehicle types including the critical vehicle. Some use by commercial and other traffic is restricted.	Single use. Not designed for mixed traffic. Some vehicles may not be able to negotiate. Concurrent
Critical Vehicle	Clearances are adeovate to allow free travel. Overload permits are required. mits are required.	Traffic controls needed where clearances are marginal. Overload per- negotiating some	Special provisions may be needed. Some vehicles will have difficulty off-loaded and walked segments.	Some vehicles may not be able to negotiate. Loads may have to be in.
Safety	Safety features are a part of the design.	High priority in design. Some protection is accomplished by traffic management.	Host protection is provided by traffic management.	Need for protection is minimized by low speeds and strict traffic controls.
Traffic Management	Normally limited to regulatory, warning, and guide signs and premits.	Employed to reduce traffic volume and conflicts.	Traffic controls frequently needed during periods of high use by the dominant resource	Used to discourage or prohibit traffic other than that associated with the single purpose.
User Costs	Minimize. Transportation efficiency is important.	Generally higher than A because of slower speed and increased delays.	Not Important. Efficiency of travel may be traded for lower construction costs.	Not considered.
Alignaet	Design speed is the predominant factor within feasible topographic limitations.	Influenced more strongly by topography than by speed and efficiency.	Generally dictated by topography and environmental factors. Design speeds are generally	Dictated by topography, environmental factors, and the design and critical vehicle limitations. Speed is not important.
Road Surface	Stable and smooth with little or no dust, considering the normal season of use.	Stable for the predominant traffic for the normal use season. Periodic dust control for heavy use or environmental reasons. Smoothness is commensurate with the design speed.	May not be stable under a1l traffic or weather conditions during the normal use season. Surface rutting, roughness, and dust may be present, but controlled for environmental or investment protection.	Rough and irregular. Travel with low clearance vehicles is difficult. Stable during dry conditions. Rutting and dusting controlled only for soil and water protection.

Arterial/Collector Road System Service Levels

Road Number	Road Name	Type	Current Service Level	Future Service Level
Mt. Baker Ranger District				
1030	Sauk Mountain	C	C	C
1040	Olson Creek	C	C	C
1050	Diobsud Creek	C	C	C
1060	Bacon Creek	C	C	C
11	Baker Lake Hwy	A	A/B	A/B
1106	East Bank	C	A	A
1107	Anderson Creek	C	C	C
1118	Dry Creek	C	B	B
1124	Sandy Creek	C	C	C
1127	Sandy Ridge	C	C	C
1130	Marten Lake	C	C	C
1131	Boulder Ridge	C	C	C
1144	Morovitz Creek	C	C	C
1152	Shuksan Creek	C	C	C
12	Loomis Nooksack	A	B	B
1230	Blue Lake	C	C	C
13	Schrieber’ s Meadow	A	C	C
14	Jackman Thunder	A	C	C
1420	Thunder Lakes	C	C	C
1540	Sibley Creek	C	C	C
1550	Irene Creek	C	C	C
1570	Found Creek	C	C	C

Table 4-16
Arterial/Collector Road System

Road Number	Road Name	Type	Current Service Level	Future Service Level
Mt. Baker Ranger District, cont.				
16	Illabot Creek	A	B/C	B/C
1610	West Boundary	C	C	C
1620	Illabot Peak	C	C	C
17	Finney-Cumberland	A	B/C	B/C
1705	Gee Creek	C	C	C
1720	Gee Pt-Pressentin	C	C	C
1730	Clendenen Creek	C	C	C
1731	Alder Pass	C	D	D
1735	Finney Peak	C	C	C
1750	DeForest Creek	C	C	C
1755	Little Deer Peak	C	C	C
1770	Claims	C	C	C
18	Segel son	A	B	B
1810	East Big Deer	C	C	C
1820	Westside Higgins	C	C	C
3071	Anderson Creek	C	C	C
31	Canyon Creek	A/C	B/C	B/C
3120	West Church	C	C	C
3130	Kidney Creek	C	C	C
3140	Canyon Ridge	C	C	C
34	Hannegan	A	B	B
33	Wells Creek	A	B	B

Table 4-16
Arterial/Collector Road System Service Levels

Road Number	Road Name	Type	Current Service Level	Future Service Level
Mt. Baker Ranger District, Cont.				
36	Grouse Butte	C	C	C
37	Dead Horse	A	C	C
38	Middle Fk Nooksack	A	C	C
39	Glacier Creek	A	A/C	A/C
3910	Thompson Creek	C	C/D	C/D
Darrington Ranger District				
18	Segelson	A	B	B
20	Mtn. Loop, NP 0.0-6.4	A	A	A
20	Mtn. Loop, NP 6.4-20.4	A	B	A
2010	French Cr, NP 0.0-1.0	C	B	B
2010	French Cr, NP 1.0-2.1	C	C	C
2010	French Cr, NP 2.1-8.3	C	D	D
2060	Clear Creek	C	C	C
2070	Murphy Creek	C	C	C
2080	Falls Creek	C	C	C
2081	Goodman Creek	C	C	C
2083	Peekaboo	C	D	D
2140	Prairie Mountain	C	B	C
22	N.Side Sauk River	A	C	C
2210	Gold Hill (4 Mile)	C	D	D
23	White Chuck	A	B	B
2311	Pugh Ridge	C	C	C

Table 4-16
Arterial/Collector Road System Service Levels

Road Number	Road Name	Type	Current Service Level	Future Service Level
Darrington Ranger District Cont.				
24	Dans Creek	A	C	C
2420	Dans Creek Divide	C	C	C
25	So. Side Suiattle	A	B	B
2510	Conrad Creek	C	C	C
26	Suiattle, NP 0.0-9.8	A	A	A
26	Suiattle, NP 9.8-24.2	A	B	B
2640	Grade Creek	C	C	C
2642	West Grade Creek	C	C	C
2660	Tenas Creek	C	C	C
27	Straight Creek	C	C	C
28	N.F. Stillaguamish	A	B/C	B/C
2810	North Mountain	C	C	C
2811	Texas Pond	C	C	C
29	Rinker Ridge	A	B/C	B/C
4020	Schweitzer Creek	C	B	B
4030	Mallardy Creek	C	B/C	B/C
4037	River	C	C	C
4052	Deer Creek	C	B	B
4060	Coal Lake	C	B	B
41	Tupso Pass	A	B	B
4110	Green Mountain	C	C	C
42	Pilchuck	C	B	B

Table 4-16
Arterial/Collector Road System Service Levels

Road Number	Road Name	Type	Current Service Level	Future Service Level
Darnington Ranger District, Cont.				
49	Curry Gap	A	C	C
North Bend Ranger District				
50	Cedar River/ Snow Creek	A	B/C	B/C
5040	Five Hundred	C	C	C
5040-110	Five Hundred 30	C	C/D	C/D
5060	Snow Creek	C	C	C
5062	Rooster Comb	C	C	C
5066	Six-0-Two	C	C	C
5078	Upper Snow Creek	C	C	C
51	Two Hundred	A	B	B
5134	Three Hundred	C	C	C
5140	Two 10/Two 11	C	D	D
52	Twin Camp	A	C	C
5210	Intake Creek	C	C	C
5220	Twin Camp Creek	C	C	C
54	Green River	A	B/C	B/C
5403	Tunnel	C	C	C
55	Tinkham	A	B/C	B
5510	Hansen	C	C	C
56	Middle Fork	A	C	B
5620	Goldmeyer	C	C/D	C/D
5640	Quartz Creek	C	D	C/D

Table 4-16
Arterial/Collector Road System Service Levels

Road Number	Road Name	Type	Current Service Level	Future Service Level
North Bend Ranger District,				
5630	Taylor River	C	C	C
57	Lennox Creek	C	C	C
58	Denny Creek	C	B	B
5730	North Fork	C	C	C
9020	Garcia	C	C/D	C/D
7034	Sawmill Rdg	C	C	C/D
Skykomish Ranger District				
6022	Heybrook LO	C	D	D
6024	Barclay Creek	C	B	B
61	Sultan Basin	A	B	B
6120	Williamson Creek	C	B/C	B/C
62	No Name Creek	A	C	C
63	N. Fk. Skykomish	A/C	B	B
6320	Trout Creek	D	D	D
6330	Salmon Creek	C	C	C/D
6412	E. Fk. Miller River	C	B	B/D
65	Beckler River	A	A/B	A
6510	Bolt Creek	C	C/D	C/D
6514	Eagle Creek	C	C	C/D
6520	Johnson Creek	C	B	C/D
6522	County Line	C	D	D
6530	Rapid River	C	C	C/D

Table 4-16
Arterial/Collector Road System Service Levels

Road Number	Road Name	Type	Service Level	Service Level
Skykomish Ranger District, Cont.				
6546	Fourth of July Creek	C	C	C/D
6548	Boulder Creek	C	C/D	C/D
6550	East Beckler River	C	D	D
6554	Evergreen Creek	C	B	C/D
6570	San Juan Hill	C	C/D	C/D
6580	West Cady	C	C	C/D
66	Beckler Peak	C	C	C/D
6710	Martin Creek	C	C	D
68	Foss River	A/C	A/B	A/B
6830	Tonga Ridge	C	B	B
6840	Maloney Ridge	C	B	B
White River Ranger District				
70	Greenwater	A	A/B	A/B
7010	Midnight Creek	C	C	C
7012	Divide Ridge	C	C	C
7030	Whistler Creek	C	C	C
7032	Williams Hole	C	C	C
7036	Green Divide	C	C	C
7060	Lower Pyramid	C	C	C
7120	Lido	C	C	C
7125	Slippery Creek	C	C	C
7130	Christoff	C	C	C

Table 4-16
Arterial/Collector Road System Service Levels

Road Number	Road Name	Type	Service Level	Service Level
White River Ranger District, Cont.				
7160	Buck Creek	C	C	C
7174	Corral Pass	C	C	C
72	28 Nile/Lightning Cr	A	C	C
7220	Echo Lake	C	C	C
7222	Forest Lake	C	C	C
7250	28 Nile Creek	C	C	C
73	Huckleberry Creek/ Eleanor Creek	A	C	C
7315	Suntop	C	C	C
7320	W.Huckleberry	C	C	C
74	W. Fk. White River/ Martin Gap	A/C	A/C	C
7415	West Valley	C	C	C
7430	Viola Creek	C	C	C
75	Jim Creek	A	C	C
7550	East Valley	C	D	D
7710	South Prairie	C	C	C
7810	Cayada Creek	C	C	C
7920	Poch Peak	C	C/D	C/D
7930	Poch Ridge	C	C	C
7530	Lonesome Lake	C	C	C

Fire

The fire protection and use program on the Mt. Baker-Snoqualmie is a service program which supports the other resource management programs identified in the Plan. The program includes all activities for: (1) the protection of resources and other values from wildfire; and (2) the use of prescribed fire to meet land and resource management goals and objectives. Fire management's role is to coordinate, plan and implement fire protection and use programs consistent with the standards and guidelines and management prescriptions.

Fire protection and use activities have a direct effect on the physical and biological environment, including air quality. Monitoring the effects of the fire management program will help determine if management practices are changing the physical and biological environment and if the cost of the program activities meet the "cost plus net value change" criteria associated with the implementation of the Forest's fire protection and use program (refer to Chapter 5, Monitoring and Evaluation Program.) The fire protection and use programs are described below.

Fire Protection Program

The fire protection program includes fire prevention, presuppression (i.e. detection, dispatching, fire danger rating, fire weather forecasting, and training), suppression, and fire management analysis and planning activities. The collective application of all fire activities required to meet the fire management direction for each management area, including fuels management, will be documented in a detailed fire management action plan to be completed within one year after approval of the Plan.

An appropriate suppression response (i.e., containment, confinement, or control) based on location, conditions, and resource values will be taken on all wildfires. Natural ignitions occurring in wilderness areas will be treated as prescribed fires until declared a wildfire. Human-caused fires in wilderness are wildfires and will receive an appropriate suppression response. The standards and guidelines outlined in the Plan are estimated to result in no increase in the number of wildfires on the forest. The acreage burned from wildfires will average no more than 150 acres per year. Fires sizes will typically be less than 5 acres though a fire in the 25-30 acre size range can be expected each year. Guidelines for the selection of appropriate suppression response for each management area will be included in the fire management action plan.

Implementation of the fire protection program involves considerable external coordination. The majority of this coordination involves formal fire protection agreements with neighboring fire suppression organizations. The Forest has reciprocal agreements with the State of Washington, Department of Natural Resources, Bureau of Indian Affairs, Puget Sound Agency, and National Park Service (North Cascades and Mt. Rainier National Parks). The Forest also cooperatively protects lands administered by the Bureau of Land Management located within and adjacent to the Forest.

Fire Use Program

The fire use program involves the planning, administration and direct implementation of prescribed fire activities for the protection, maintenance and enhancement of resource productivity.

D. FOREST-WIDE STANDARDS AND GUIDELINES

Standards and guidelines state the bounds or constraints within which all practices will be carried out in achieving the resource objectives of the alternatives. The management of the Mt. Baker-Snoqualmie is subject to all applicable laws and regulations. Standards and guidelines are intended to help the manager achieve the goals and objectives, while staying within constraints prescribed by law.

There are two categories of standards and guidelines: Forest-wide, applying to all management areas (discussed in Part D, below); and standards and guidelines specific to individual management areas (Part E of this chapter).

Development of Standards and Guidelines

The Forest-wide standards and guidelines and management prescriptions were developed according to Regional Direction, for the purpose of: 1) identifying anticipated potential direction for activities on the MBS, and 2) assist in directing formulation of the Forest's planning model and alternatives. The Forest-wide standards and guidelines contain management requirements (MR's) and other important direction.

Both the Forest-wide standards and guidelines and the individual management area (MA) prescriptions contain a goal statement, reflecting the expected results for a forest resource, activity, or land area. They provide direction emphasis for the Mt. Baker-Snoqualmie, supplementing Forest Service manuals, handbooks, and the Regional Guide. Both respond to Forest ICO's, appropriate laws, regulations, and existing direction, land capabilities, and professional judgement.

Forest-wide Standards and Guidelines and Management Area Prescriptions

Management direction for the Mt. Baker-Snoqualmie is defined by bath the Forest-Wide Standards and Guidelines and the individual Management Prescriptions. The Forest-Wide Standards and Guidelines are applicable to all areas of the Forest, unless exceptions are specifically noted in an individual management prescription. The Management Prescriptions are sets of management practices scheduled for application on a specific Management Area.

<u>Definitions</u>

To understand the intent of the Forest-wide and MA standards and guidelines, the interpretations of the terms used are critical.

> The first intent is conveyed by the word shall (also, "must" and "will").
> The action is mandatory in all cases.
>
> The second is conveyed by the word should. With this degree of restriction, action is required unless justifiable reason exists for not taking action. This direction is intended to require a practice unless it entails unacceptable hardship or expense. Exceptions to "should" are expected to occur infrequently.
>
> The third type of direction uses the word practicable and acknowledges that a given practice is not always feasible and practical in every situation. It is intended to encourage, but not require, a practice.

The fourth uses the word “may” and has to do with activities which may or may not be appropriate, depending on circumstances. This direction is intended to allow for taking advantage of compatible opportunities, or to provide for exceptions when the objectives of a particular standard can be met through alternate methods.

The following is a list of the contents of this section of Chapter 4, Part D, The Forest-wide Standards and Guidelines.

Contents for Forest-wide Standards and Guidelines

GENERAL PROCEDURES

Goal: Meet identified land, resource, and support activity goals.

1. Activities affecting forest system lands and resources will be analyzed through NEPA analysis.

2. Economic efficiency will be a consideration in forest and project level planning and development.

3. Improve net benefits of all resources by reducing unit costs through improved management efficiency and new and emerging technology.

4. Management of forest system lands, resources, and activities will be coordinated with appropriate local, State, Federal agencies, private landowners, Indian tribes, and interest and user groups.

RECREATION

Goal: Provide a broad spectrum of recreation opportunities and experiences on the Mt. Baker-Snoqualmie National Forest.

General

1. Encourage public and other agency participation in recreation planning.

2. Implement practices that will reduce costs of recreation operation and increase revenues from recreation use where cost effective to accomplish.
3. Whenever possible, other resource activity planning such as road and timber sale developments should incorporate plans to provide or improve compatible recreation facilities or services.

4. Provide public with appropriate information on recreation opportunities and knowledge of forest resource management.

5. Update the existing situation Recreation Opportunity Spectrum (ROS) map in the Forest data base or Geographic Information System (GIS) every five years.

Dispersed

1. Provide for a broad spectrum of ROS settings and recreational opportunities such as hunting, fishing, gathering forest products, viewing scenery, camping, hiking, floating, etc.

2. Inventory, evaluate, and manage dispersed occupancy sites.

3. Manage public use as necessary to protect resource values, provide a quality experience and provide for public health and safety.

4. Identify the potential change of any proposed activity on Recreation Opportunity Spectrum (ROS) classes in all project environmental analysis.

5. Evaluate opportunities to allow for expanded public recreation service through commercial outfitter-guide operations.

Developed

1. Provide public information that informs the user about recreation opportunities and how to care for forest resources.

2. Appropriate recreation facilities will be evaluated for recreation mitigation for all proposed hydroelectric projects.

3. Developed facilities will be administered and maintained to provide visitor safety and sanitation, protect facility and site resources, and provide for visitor recreation needs and convenience; while reducing unit costs. Work towards concentrating developed campground facilities in high use zones where cost and service efficiency is highest.

4. Developed facilities will be kept in a satisfactory condition, otherwise they should be closed to use, or removed.

5. The minimum level of management for any developed site will be determined by Forest Service monitoring for health and safety. The public will be expected to provide self service or to pay a user fee where such measures will help reduce net federal expenditures.

6. Evaluate opportunities for private operation of Mt. Baker-Snoqualmie recreation facilities.

7. Developments operated under Special Use Permit shall be administered to assure the permittee is following the terms of the permit.

8. Encourage year-round recreation use at winter-sports sites. Permit summer facilities that are compatible with or enhance natural resource-based recreation opportunities and in keeping with the Recreation Opportunity Spectrum (ROS).

9. No additional recreation residence tracts will be created. As the renewal date approaches on each permit, the permit will be reviewed in terms of the highest public use for land. If a determination is made that the permit site is needed for a higher public use, the permit shall be terminated and the improvements removed after appropriate notification.

   Existing permits will have the following clause included: “Where existing improvements are destroyed by fire, flood, etc., the permit may be considered for termination.”

Trails

Overall Objectives Applicable to the Entire Forest.

1. To provide a system of trails with routes, construction standards and maintenance standards that compliment the resource capabilities and management objectives of the area served. The system will also provide for necessary administrative access, provide for safe use on various difficulty levels of trails, and have minimum impact on soil, water, visual and other sensitive values.

2. To provide on a Forest-wide basis (not necessarily on each Ranger District) a broad spectrum of trail travel opportunities including: trails at various elevations, trails in diverse settings, and trails suitable to various kinds of users and modes of travel.

3. To proceed from the present trail system to an optimum future system as rapidly as is practicable through reconstruction, relocation, new construction, and the rehabilitation of unneeded trails to a natural condition.

4. To achieve a unified trail system, on and adjacent to the Forest, and assure that the Forest trail system complements management of adjacent land and vice-versa.

5. To assure that the trail system meets the needs of trail users, while remaining consistent with resource capabilities and land allocations.

6. To apply available funds to the highest priority trail reconstruction, construction, and maintenance projects.

7 Trails shall assume the visual quality level of the management area they pass through.

Specific Policies Applicable to the Entire Forest.

1. A broad spectrum of trails will be provided, varying in degree of ease and convenience. Trails will meet the primary objective and difficulty level standards as described in FSH 2309.18.

2. Trails may be provided where soil and vegetation, on and adjacent to the trail route, are suitable for such uses.

3. Each trail shall be managed to a particular “primary objective” (user type). If conflicts arise they will be minimized thru information and education, or as a last resort, closed to users other than the primary objective user.

4. Motorized and/or pack and saddle use of existing trails will be allowed only where the trail, as presently constructed (and soils and vegetation adjacent to the trail), can absorb such use without unacceptable damage.

In some cases the long range “primary objective” may not exist until the trail is reconstructed to that standard. Closures may exist until the trail meets the planned “primary objective” standard.

5. Existing and potential heavy use areas (focal areas) will receive special attention in planning so that necessary facilities are provided, and trails do not introduce undesirable use. Such planning will be completed prior to major construction and/or reconstruction affecting such focal areas.

6. Hiker-only trails shall, when feasible, be separated from trails open to other kinds of users. Trails open to other kinds of users should not dead-end at a hiker-only trail.

7. Trails for pack and saddle use should, when topographically possible, by-pass focal areas, such as alpine lakes, by at least 200 feet in elevation or 500 yards horizontally.

8. Trail systems should provide for loop trails and interconnecting links where consistent with other needs, constraints, and land allocations.

9. Special emphasis will be given to identification and planning for trails at elevations where the ground is usually snow free for at least half of the year.

10. Seasonal use restrictions will be used where appropriate to protect soil, vegetation, wildlife, and to manage conflicts in use.

11. Maps showing restrictions on the use of trails will be developed and made available to the public.

12. Only system trails are considered safe for use. Only system trails will be signed on the ground and shown on maps. Publishers of guidebooks will be encouraged to follow a similar policy.

13. Priority for use of trail funds will generally be as follows:

    a) Maintenance of the existing system.

    b) Reconstruction and relocation of existing trails to protect the resources.

    c) Reconstruction and relocation of existing trails for user safety and convenience.

Within these priority levels, individual projects will be prioritized based on such factors as environmental protection concerns, user safety, volume of use, and length of season of use.

14. The use of volunteers for trail maintenance will be encouraged.

15. Wheeled motorized vehicles will be prohibited on groomed snowmobile and cross-country ski trails.

Specific Policies Applicable to Certain Management Areas on the Forest.

1. Wilderness.

   a. Management objectives will be aimed toward providing a primitive recreational experience in a natural wilderness setting.

   b. Trail management objectives will be closely related and coordinated with the WROS zone to' be served.

   c. A diverse spectrum of opportunities and experiences by difficulty level, mode of travel, distance and kind of destination will be sought.

   d. Visitors will be discouraged from establishing additional informal trails.

   e. Normally, no new trail construction or major reconstruction will be undertaken until an environmental analysis has been completed for the site specific project.

   f. The major objective in trail planning is to minimize the impact of trails on soils, vegetation, visual and other resource values.

   g. Trail construction and maintenance in wilderness areas using motorized equipment may be allowed only with approval of the Regional Forester. Approval will be on a one-time, case-by-case basis.

   h. Bridges will be provided only when:

   - The most suitable and logical crossings cannot be safely negotiated during primary periods of use.

   - When less formal devices (i.e., footlogs) are likely to be frequently destroyed by flood waters.

   1. Native materials (wood, local rock, bank-run gravel) that blend with the trails environment will be used where such materials are necessary as a part of trail construction.

   j. Signing will be held to a minimum and consist of rustic white oak signs showing trail destination.

2. Unroaded Management Areas Outside of Wilderness. This includes all areas of sufficient size to constitute a manageable entity that, based on classification, resource capability, and/or land use planning recommendations, will continue to be managed in a roadless condition for the foreseeable future. The following specific policies will apply to each such area:

   a. The trail system will be based on, and consistent with, the resource capability and management objectives of the area.

   b. In most areas, management objectives will aim at providing a primitive recreational experience in a near-natural setting.

c. Compared to wilderness, a greater degree of modification of the natural environment will be allowed in trail construction and maintenance, if necessary to achieve standards consistent with management objectives. Non-native materials and motorized equipment may be used.

3. Roaded Management Areas. This includes all areas that are presently roaded or that, based on classification, resource capability and/or land use planning recommendations, will be roaded in the foreseeable future. The following specific policies will apply to such areas:

a. This Trail Plan and Trail System planning will be an integral part of project planning.

b. Significant trail opportunities will be identified and managed as the road systems are developed. Examples of "significant trail opportunities" include:

- Trails from a road to a significant feature or attraction such as a fishing stream or viewpoint.

- Trails that will be snow-free for at least half the period from November through April.

- Trails of historical significance.

- Trails that are part of a continuous route from low to high elevations.

c. Trails interrupted by logging or road construction will be restored or substitute trails with the same primary objective and difficulty level provided so that the mileage of trails in the same general area is not diminished. Trails will be kept open, and clear directions for users provided during interrupting activities.

d. Where resource capabilities and management objectives permit, consideration will be given to the development of trails suitable for motorized use.

e. Abandoned or closed portions of the road system will be considered for management as trails.

f. Hiker & interpretative trails should be provided near most large campgrounds to provide for visitor use and enjoyment. Some of these should be suitable for barrier free access.

g. Trails suitable for barrier free users will be provided so as to make recreation opportunities more available to them.

4. Pacific Crest National Scenic Trail. This is a part of the National Trail system by Act of Congress. It is managed for hiker and pack/ saddle use. Standards for construction and maintenance have been established for its entire length. The following specific policies will apply:

a. Where the trail passes through wilderness; location, design, construction and maintenance standards will be modified to the extent needed to meet the intent of WROS zone through which it passes.

b. In non-wilderness areas manage to meet standards of ROS zone that the trail passes through.

c. Management will be fully coordinated with the Wenatchee National Forest and the National Park Service.

d. Motorized use will not be allowed on any trail or segment of trail that terminates at the Pacific Crest Trail, unless there is a logical destination point of attraction prior to the PCNST.

e. Mountain bikes are not allowed on the Pacific Crest Trail, as per Regional Forester closure notice, August 31, 1988.

5. National Recreation Trails. The National Recreation Trails System highlights certain trails that provide outstanding opportunities for recreational use located near centers of population.

a. Potential National Recreation Trails will be identified that meet the established criteria.

b. Priority will be given to bringing existing and potential NRT trails to standard.

c. As they are brought to standard, they will be formally proposed for designation.

6. Areas Where Public Use is Prohibited or Not Encouraged. This includes some municipal watersheds and the Research Natural Areas. The following specific policies will apply to such areas:

a. In Research Natural Areas, research personnel will be consulted about any trail plans or proposals.

b. Public use of existing trails in Research Natural Areas may be allowed to continue, but increases in such use or off-trail use will not be encouraged.

c. Trails in, or on the border of municipal watersheds will not be constructed or reconstructed before local officials have been contacted.

7. Trailhead Policy. A trailhead is the place where a trail connects with a road or a navigable body of water. Trailhead use, and therefore trailhead development, varies greatly. The following specific policies will apply to trailheads:

a. Trailheads are part of the transportation system and will be developed and maintained with Forest Roads Program funds.

b. As a minimum, a trailhead will provide adequate parking for an average peak season weekend day's use. This may be provided by turnouts located within 1/4 mile of the trail. Signs and posters needed to inform the trail user should be provided.

c. Heavier use situations may include off-road parking, horse-handling facilities, toilets and garbage containers. Only under unusual circumstances will such facilities as potable water and camping facilities be provided at trailheads.

d. When a trail will be intersected by new road construction, the needed trailhead facilities should be part of the road construction "package".

8. Maintenance.

a. Annual trail management plans list the total requirements for maintaining the trail system. The following criteria are normally used in establishing priority for trail maintenance work:

Generally, the first priority for maintenance activities would be the correction of unsafe conditions relative to the management objectives. Following this, maintenance activities (see section 4.23 of FSH 2309.18) are based on the primary objective and difficulty level (See Trail Maintenance Activity Matrix, MBS Trails Handbook).

Winter Recreation

1. Each major winter recreation activity (Alpine and Nordic skiing, snowmobiling, and snow play) will have areas designated and managed to accommodate them. Other activities occurring within these areas should be limited or prohibited if they conflict with the primary activity, or if overcrowding develops.

2. Ranger District Mountain Weather/Avalanche Advisory Systems will be coordinated with the R6, NW Avalanche Center System. The Forest will provide public information and education on avalanche conditions and safety.

3. Patrol and safety may be provided through a combination of permittee and/or volunteer ski patrols. The Forest Service may provide leadership and training in such patrol activity.

4. Different skill levels of users shall be provided for and considered when designing trails and related facilities. A spectrum of opportunities for winter recreation will be maintained, including primitive dispersed opportunities with no facilities.

5. National Forest managers will coordinate with and support the Sno-Park and Snowmobile programs. Normally, provision for plowed parking will be made through these programs.

6. Alpine ski permittees will be encouraged to integrate winter dispersed recreation into their operations if and when the opportunity and demand exists.

7. Where a need for groomed trails is identified, such facilities will normally be provided through special use permits. The permittee may be allowed to charge user fees.

8. Winter recreation facilities, such as parking lots, groomed ski trails, motorized use zones, and cross country ski trails, should attempt to avoid south-facing aspects where significant wildlife winter use occurs.

Motorized Vehicle Use

1. Ensure that motorized use, including over snow type is managed to mitigate their impacts on other resources, promote safety of users, and minimize conflict. (Executive Order 11644, as amended by EO 11989).

2. Provide a diverse system of maintained trails for the enjoyment of all users and to meet the needs for administrative and resource management purposes.

3. Use ORV closures only when needed to minimize disturbance of wildlife, minimize recreation use conflicts, or to protect soil and water resources.

VISUAL RESOURCE MANAGEMENT

Goal: Provide an attractive forest setting, emphasizing the natural appearance of areas seen from major roads and recreation sites.

1. The minimum visual quality objective is maximum modification.

   a. Maximum modification provides that vegetation and land form alterations resulting from management activities may dominate the characteristic landscape. However, when viewed as background, cut blocks, patches, or strips are shaped and blended to the extent practicable with the natural terrain.

   b. When viewed as foreground or middleground, management treatments may not appear to completely borrow from naturally established form, line color, or texture. Alterations may also be out of scale or contain detail which is incongruent with natural occurrences, as seen in foreground or middleground.

   c. The introduction of structures, roads, slash, and other project-related debris must remain visually subordinate to the proposed composition when viewed as background.

   d. For this level of management, the reduction in visual contrast of activities and treatments with their surroundings should be accomplished within 5 years (Agriculture Handbook Numbers 462 and 559).

2. Management of the foreground of the Pacific Crest Scenic Trail will meet at least the level of the ROS environment that the trail passes through.

3. In evaluating management activities within the viewsheds (including outside the river corridors) of designated "wild", "scenic" and "recreation" rivers the following visual conditions shall apply.

River Classification	**Visual Quality Objectives**		
	Classified Corridor (1/4 mile foreground)	Viewshed Beyond Classified Foreground Sensitivity Level 1	Sensitivity Level 2&3
Wild	**Preservation** Retention may be used for necessary recreation facilities	**Retention** middleground **Partial Retention** background	**Partial Retention** middleground **Modification** background
Scenic	**Retention** Partial retention may be used for necessary structural facilities	**Partial Retention** middleground **Partial Retention** background	**Modification** middleground **Modification** background
Recreation	**Partial Retention** Modification may be used for necessary structural facilities background	**Partial Retention** middleground **Partial Retention** background	**Modification** middleground **Modification**

4. Update Forest Existing Visual Condition (EVC) and Visual Quality Objective (VQO) mapping every five years, in the Forest data base or in Geographic Information System (GIS).

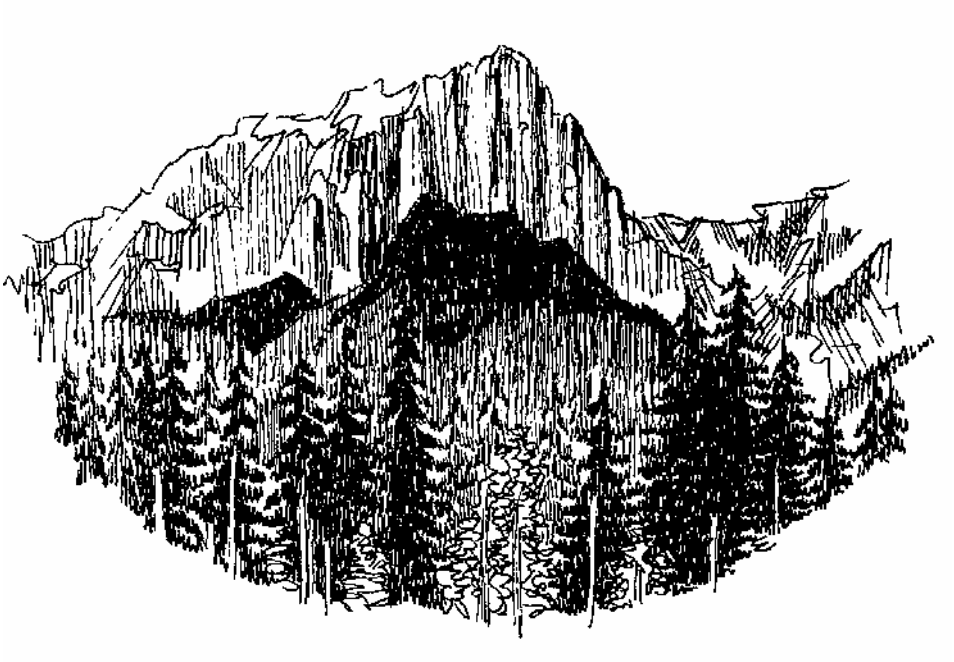
5. The Scenic Byway designation applies to the following scenic drives:

   Mt. Baker Highway Scenic Byway, and Proposed Scenic Byways on the Mt. Loop Highway and Stevens Pass Highway when designated.

   a. Recreation facilities will be planned in the roaded natural and rural recreation opportunity spectrums. Facilities will accommodate families, the elderly and will be barrier free where possible.

   b. Interpretive plans shall be prepared. Wayside exhibits and interpretive trails will be added to enhance the publics knowledge of cultural and natural features and resource management.

   c. Trails with an “easiest” hiking standard shall be planned where appropriate.



WILD AND SCENIC RIVERS

Goal: Maintain recommended rivers and streams to protect their highest classification level until Congress takes actions on preliminary administrative recommendation.

1. Recommend to Congress 30 rivers for addition to the National Wild and Scenic Rivers System. Refer to Chapter 4, Resource Summaries for a listing of these rivers.

2. Maintain or enhance the recreation, visual, wildlife, fisheries and water quality values of the existing and recommended wild, scenic, and recreation rivers.

3. Recommended wild and scenic rivers shall be managed to protect those characteristics that contribute to the eligibility of these rivers at their highest potential classification until Congress formally determines their status.

4. Encourage participation and cooperation of public and private landholders in the study and implementation of river classification on non-national forest lands.

5. In the recommended wild, scenic, or recreational river corridors, a no-surface occupancy stipulation shall be required in mineral leases.

6. Commercial outfitting and guide permits should be allowed where there is a demonstrated management and public need compatible with general public use and Limits of Acceptable Change.

7. In recommended and existing wild, scenic, and recreation river corridors, new dams, diversions, or hydroelectric power facilities shall be prohibited to the extent of Forest Service authority. Existing facilities may be maintained.

8. Each River Management Plan shall include an estimated capacity for the river using the Limits of Acceptable Change (LAC) process.

COMMUNITY AND HUMAN RESOURCES MANAGEMENT

Goal: Promote human resources, civil rights, and community development within the zone of influence of the Mt. Baker-Snoqualmie National Forest.

Management

1. Conduct compliance reviews as required by Title VI of the Civil Rights Act of 1964 and the established Forest Service standards.

2. The Forest will actively pursue the employment of the handicapped and ensure that the needs of the handicapped are considered in the design of forest facilities.

3. The Forest will participate in human resource programs that support community and economic development.

4. Provide employment opportunities for senior citizens.

5. Utilize volunteers in various activities such as in trail work, wildlife inventories, campground hosts, and other projects.

AMERICAN INDIAN RELIGIOUS AND CULTURAL USES

Goal: To assure the availability of sites and areas for religious and ceremonial use by American Indian tribes within the planning area. (Any areas and sites which contain artifacts or features will be considered cultural resources. These will undergo inventory, evaluation, protection, and enhancement as previously described.)

1. Maintain and update the "Inventory of American Indian Religious and Cultural Use, Practices, Localities, and Resources

2. Protect confidentiality of American Indian religious and cultural use areas.

3. Identify specific sites and areas according to the nature of the religious use or ceremonial practice:
    a. Spirit Quest and legendary sites
    b. Cedar area
    c. Ceremonial flora and plant areas
    d. Cemeteries

4. Protect a portion of religious and cultural use areas as a result of allocation to management areas which maintain conditions suitable for religious and cultural use.

5. Review the "Inventory of American Indian Religious and Cultural Use, Practices, Localities, and Resources" during the scoping phase of environmental analyses.

6. Present information about planned project activities in all management areas (i.e., protected and otherwise) to religious and political leaders of tribal groups whose traditional practices might be affected.

7. Where projects will affect American Indian religious and cultural use sites, protection and mitigation measures shall be worked out with the leaders of the affected tribal groups on a project specific basis or through Memoranda of Agreement.

8. Project level protection and mitigation measures shall consider the nature of the religious site, type, and duration of use and other factors of concern to tribal leaders in determining what appropriate measures can be designed to protect site values. They shall maximize retention of purity, privacy, and isolation, consistent with overall Plan objectives.

9. In the event that religious artifacts or features are discovered during implementation of a project, follow the procedures of 36 CFR 800.11. Notify the affected tribe(s).

10. National Forest lands shall be managed to recognize and reduce social and administrative barriers to religious uses of the forest by American Indians.

ARCHAEOLOGICAL AND HISTORICAL PROPERTIES

Goal: To provide for management and protection of cultural resource values through a program which integrates inventory, evaluation, protection, and enhancement.

Inventory

1. Maintain a cultural resource overview of the Forest. The overview should summarize all previously recorded cultural resource information for the Forest, provide a framework for evaluating cultural resources identified through the inventory process, develop a research design to guide future surveys, inventories, and scientific investigations, and identify opportunities for interpretation of a range of cultural properties.

2. A professionally supervised cultural resource inventory program will be conducted, on a project specific level, for all activities which might affect resources eligible for the National Register of Historic Places, including land exchanges and facility maintenance. A systematic program of inventory of areas not affected by projects will be implemented, in order that a complete inventory of Forest cultural resources be assembled.

3. A Cultural Resource Inventory Plan will be developed to guide all inventory activities, specifying types and intensity of survey by geographic area within the Forest.

4. Results of project level cultural resource inventories shall be documented through environmental analysis for the project. Cultural resource compliance shall be documented according to the current Memorandum of Understanding between the Washington State Historic Preservation Office (SHPO) and the Mt. Baker-Snoqualmie National Forest.

5. The Forest Cultural Resource Overview site list shall be updated regularly to reflect additions to the data base. The backlog of sites that lack complete records will be reduced through a systematic program of recordation.

Evaluation

1. Evaluate the significance of inventoried sites by applying the criteria for eligibility to the National Register of Historic Places. This will be accomplished by a professional cultural resource specialist. Sites may be treated as individual properties, thematic groups, or historic districts. Give priority to those properties that may be affected by project activities. Evaluations will be coordinated with the criteria contained in the Cultural Resource Overview and State Historic Preservation Plan.

2. Consider the effects of all National Forest undertakings on significant cultural resources.

3. Develop management plans, in consultation with the Washington SHPO, Advisory Council and other interested parties as defined in 36 CFR 800, for National Register-eligible sites. Plans are to specify measures to protect and maintain the cultural integrity of the sites, objectives for management

of the setting, identify levels and types of other resource uses compatible with the cultural values of the sites, an interpretive design if appropriate, and a schedule to carry out the objectives of the plan. Adaptive or compatible modern uses of historic properties, such as use as Forest Service administrative facilities, should be encouraged. Priorities will be established based on the significance of the resource and the level of on-going impacts.

4. Develop Programmatic Memoranda of Agreement and/or management plans (in consultation with the SHPO) for the evaluation of classes of prehistoric and historic resource properties found on the National Forest. Examples include mining improvements, timber claim cabins, prehistoric lithic scatters, stripped cedar trees, railroad logging sites.

5. Initiate a systematic program to nominate cultural resources that meet the criteria for eligibility to the National Register of Historic Places.

Protection

1. Until proper evaluation occurs, all known cultural resource properties shall be protected.

2. Develop measures, in consultation with the Washington SHPO, Advisory Council, and other interested parties as defined in 36 CFR BOO to protect significant sites from adverse effects due to Forest development or management practices. Avoidance of impacts (leaving resources undisturbed) shall be explicitly considered for all significant resources. Other measures may range from avoidance of the site and protection of its environmental setting to data recovery or recordation to Historic American Buildings Survey or Historic American Engineering Record standards. Actual measures will be determined through Programmatic Memoranda of Agreement or during consultation for specific projects.

3. Confidentiality of cultural resource site location shall be maintained as required by Section 304 of the National Historic Preservation Act.

4. Based on management plans, protect eligible cultural resources from degradation due to public use and natural deterioration. Protection activities may include, but are not limited to, scientific study and collection (as outlined in a data recovery plan), the use of fences and barriers, proper use or removal of signs, stabilization techniques, closure orders, patrol and site monitoring, maintaining site anonymity, and gaining public understanding and support through education.

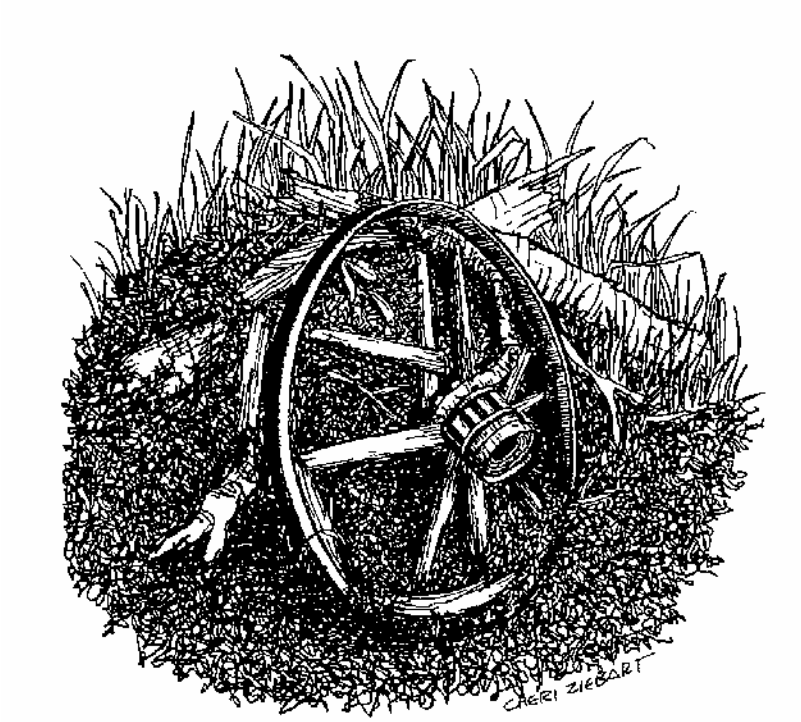
5. Decisions on the maintenance level for eligible historic structures will be based on an analysis of utility, interpretive value, public interest, existing site or area allocation, funding sources, and existing agreements.

6. Wildfire suppression plans and prescribed burning prescriptions to be applied in areas of known or potential cultural resource properties shall comply with 36 CFR 800. A cultural resource inventory and consultation with the State Historic Preservation Officer may be required.

Enhancement

1. The Forest shall foster active programs of research through permits to, and cooperative agreements with, qualified institutions, organizations, and individuals; and by identifying opportunities for research. Such research should meet Forest Service, State, and/or scientific needs.

2. In preparing cultural resource management plans (Evaluation # 3 above), consider the interpretation of properties for the recreational use and educational benefit of the general public. The measure of suitability should be based on accessibility to the public, feasibility for protection, condition of the property, compatibility with other resource management activities within or adjacent to the area, thematic representation, and value to public groups. Preferred methods include brochures, signs, and self-guided tours.



WILDERNESS

Goal: The goal of wilderness management is to feature naturalness, provide opportunities for solitude, challenge, and inspiration, and within these constraints to allow for recreational, scenic, scientific, educational, conservation, and historical uses. Permitted but non-conforming uses specified in the Wilderness Act will be carried out under restrictions designed to minimize their impact on the wilderness. The criteria used for conflict resolution will be to preserve and protect the wilderness resource.

Wilderness exemplifies freedom, but is defined more by the absence of human impact than by an absence of human control. Management therefore shall seek to minimize the impact of use rather than use per se. A high priority, however, shall be placed on spontaneity of use and as much freedom from regimentation as possible while preserving the naturalness of the wilderness resource and the opportunity for solitude, primitive recreation, scenic, scientific, and historical values.

In carrying out this goal, a policy of nondegradation management shall be followed. The nondegradation policy recognizes that in wilderness one can find a range of natural and social settings from the most pristine to those where naturalness and opportunities for solitude have been diminished by established uses. It is the intent of this policy to assure that appropriate diversity and existing wilderness character are maintained. Further intent is to ensure that all of the most pristine areas will not be reduced to the minimum acceptable standard of naturalness simply to disperse and accommodate more use.

Managers shall administer the wilderness using five wilderness Recreation Spectrum classes: Transition, Trailed, General Trailless, Dedicated Trailless, and Special Areas. This classification is a refinement of the primitive and semi-primitive nonmotorized ROS classes. Within each of these is described the character of activities expected within the class and standards to guide management.

Recreation - To provide a spectrum of opportunities for wilderness recreation featuring a natural environment, solitude, physical and mental challenge, and inspiration consistent with preservation of wilderness values.

Wilderness provides unique and highly favored recreational experiences, however, recreational use of wilderness must be closely managed and monitored to assure that degradation of resource values does not occur. The following standards and guidelines are established to help achieve this end.

1. If monitoring of on-site conditions indicates that wilderness resource values are being degraded or changed to a point that limits of acceptable change are being closely approached, management actions must be implemented to reverse the declining trend. Recreational visitor activities may be regulated, reduced, or excluded from specific sites or areas. Management actions designed to solve user impact problems will generally be fully implemented before entry quota systems are employed.

2. Manage use within the limits of acceptable change for the five Wilderness ROS classes. Set specific site and area carrying capacities for heavy use areas to meet established standards.

3. Regulations limiting the number of visitors to maintain established Limits of Acceptable Change should be put into effect only after other reasonable measures to minimize impacts have been considered. Non-regulatory management measures may include: improve, maintain, or lower standards for access roads, trailhead facilities, and trails; advertise special attributes of selected areas; identify the range of recreation opportunities in surrounding areas; educate users about basic concepts of protecting wilderness ecosystems; advise users of little-used areas and general patterns of use, and etc. Limitations on numbers of users should be applied to particular heavy use locations where carrying capacity levels are exceeded before they are applied to the entire wilderness.

4. If it becomes necessary to establish priorities for wilderness visitation, highest priority should be given uses which (1) least alter the wilderness environment, and (2) are dependent upon the wilderness environment. Other users should be encouraged to visit areas outside the wilderness.

5. Proposed temporary improvements must be necessary for the protection of the wilderness resource and not for the convenience of users. Authorized improvements shall be constructed of natural materials, and designed to harmonize with the environment.

6. Commercial outfitting and guide permits should be allowed where there is a demonstrated management and public need compatible with general public use and limits of acceptable change.

   The number of permits issued and the amount of use allocated to permit holders should be evaluated periodically to assure an appropriate balance is maintained between general public use and outfitter use. Outfitter guides should not be allowed to dominate the use of an area or occupy favored campsites to the point that use by the general public is limited or constrained.

   a. Outfitter-guide camps should be located away from other popular visitor campsites to reduce social resource impacts.

   b. Outfitter-guide permittees should actively assist in the education of wilderness visitors, within the scope of their operations.

   c. Outfitter-guide operations will generally be required to adhere to established party size limitations and use conditions specified for each wilderness. Any deviation from catching or party size limitations must be documented in the annual operating plan and approved by the District Ranger.

7. Recreation visitors should not be permitted to cache or store equipment, personal property, or supplies in wilderness. Caching is defined as leaving equipment unattended for more than 48 hours.

   The following criteria should be used when considering waivers to allow caching of equipment in wilderness for a period longer than 48 hours.

1. Granting of the waiver is part of a managed corrective action aimed at getting control of historical occupancy and use problems.

2. The requested area is not highly controversial with the public.

3. The requested area is not located where there is frequent competition for available sites.

4. The site can accommodate the planned use.

5. The waiver will not exceed a length of stay prohibited by another order, ie: 14 day limit.

6. The site is not located in high visibility areas such as trail foregrounds, Mountain passes, meadows, or lake shores.

7. The waiver can be monitored for compliance.

8. The waiver will facilitate an important wilderness enjoyment purpose, for which reasonable alternatives are lacking.

8. A range of management tools may be used to reduce conflicts and impacts. Possible Management Actions:

When analysis of visitor use levels and monitoring results indicate management action is necessary to solve resource impact problems, a process will be followed to select the appropriate management actions.

Areas will be field checked when inventory or monitoring data show that resource standards are being approached and the trend is downward toward greater deterioration. The field review will determine if the indicators were properly measured and if the indicators accurately reflect the resource conditions.

Tables 4-17 list a range of potential management action depending on the specific circumstances that may be successful in reversing deteriorating conditions. The actions are listed in order of descending priority.

The emphasis in selecting management actions will focus on choosing actions which will be least intrusive to wilderness visitors, yet effective in resolving problems. In cases where problems are extensive, complex, and very visible, management actions will be required that will have some effect on visitors freedom to use certain areas.

In areas where resource impact has been severe, rehabilitation and restoration work will be accomplished to speed up the natural recovery process.

Should the management actions implemented not result in improving conditions, more restrictive and intensive management actions will be instituted. This progression will continue down through the sequence of management actions until the problems are resolved.

Management actions selected, or the extent to which an action is implemented, should also be in accord with the appropriate WROS Class of the area involved.

Table 4-17
Potential Management Actions to Improve Campsite Conditions
Descending Order of Implementation

1. Education of users outside wilderness
2. Information outside wilderness, at trailheads
3. Contact repeat users such as organized groups, clubs and associations, etc.
4. Wilderness Ranger contacts
5. Reroute trails away from lakes
6. Prohibit stock in campsites
7. Restrict camping near lakes, streams, and meadows
8. Prohibit campfires in specific areas
9. Equipment requirements
10. Install resource protection facilities on durable sites
11. Limit party group size
12. Length of stay limit in problem areas
13. Close campsites to specific users
14. Rehabilitate damaged areas
I5. Special law enforcement efforts
16. Campsite closure
17. Campsite permits
18 Entry quota permit system

Reduce Campsite Density

1. Education of users outside wilderness
2. Information outside wilderness, at trailheads
3. Contact repeat users such as organized groups, clubs and associations, etc.
4. Campsite obliteration and rehabilitation
5. Prohibit camping within prescribed distances of trails, lakes, streams, and meadows
6. Make access to problem areas more difficult
7. Campsite closures, may be seasonal
8. Closure of large areas to camping

Reduce Trail and Campsite Encounters

1. Education of users outside wilderness
2. Information outside wilderness, at trailheads
3. Encourage use outside peak periods
4. Limit group size
5. Seasonal campsite closures
6. Restrict camping near trails
7. Close campsites to certain users
8. Close specific areas to camping
9. Change trailhead and access conditions
10. Length of stay limits
11. Allow only one-way travel on some trails
12. Campsite permits
13. Entry quota permit system

Improve Vegetative Conditions Impacted by Recreation Stock/Pack Animal

1. Education of users outside wilderness
2. Information outside wilderness, at trailheads
3. Allow no hay or unprocessed grain
4. Require use of supplemental feed
5. Limit total number of stock per party
6. Limit group size
7. Prohibit stock in specific areas
8. Prohibit stock in campsites
9. Eliminate facilities that are attractions
10. Provide facilities where impacts should be concentrated on durable sites
11. Allow no stock to feed within specified distance of lakes, streams, and wet areas
12. Seasonal closures
13. Close drainages to stock on a rotating basis
14. Length of stay limits
15. Closure of large ares to stock

Wild and Scenic Rivers - Sections of rivers within wilderness are being recommended for designation as Wild Rivers under the Wild and Scenic Rivers Act. The classification of river segments as "Wild" rivers is compatible with wilderness designation. Management decisions regarding land use or appropriate recreation activities will be directed by the act which has the most restrictive language regarding a specific question. For example, impoundment of rivers, which could be approved by the President under the Wilderness Act, Section 4(d)(4), would not be authorized on a river in wilderness designated "Wild" under the Wild and Scenic River Act, Section 7. Recreation use of a designated "Wild" River in wilderness may be regulated, if such use is creating impacts on wilderness resources that is not in keeping with the Wilderness Act. Management activities and recreation use impacts that occur on wild river segments within wilderness will be monitored for compliance with both Acts.

Visual Quality - To develop facilities and conduct management activities to create acceptable visual conditions in keeping with preservation of the wilderness character.

Natural events and processes such as rock slides, avalanches, tree mortality due to insects and disease, or fire, will change the visual conditions present. These natural occurrences will not be considered as detrimental to Visual qualities. Special management actions would not be taken to mitigate or repair visual damage.

Signing - Provide signs only where necessary to protect the wilderness resource and for basic visitor protection and orientation. The objective is to install and maintain the <u>least</u> possible number of signs.

I. Rough cut, chamfered edge, unfinished white oak shall be the standard sign material in the wilderness. Lettering may be routed and lightly scorched. Pacific Crest National Scenic Trail logo will be branded on white oak.

2. To facilitate long-term mounting and to minimize the visual impact, white oak signs should be placed on trees wherever possible. Where posts are necessary, use untreated native materials that will weather over time.

3. All existing signs should be individually evaluated to determine if they meet the sign management objective. Signs that are needed to meet management objective, but are not of the current design, should be replaced when the existing sign is no longer serviceable. The need for signs should be minimized by developing accurate map brochures and other user information systems.

4. Mileages shall not be placed on signs within the wilderness.

5. Signs needed for management and regulation of use (including site restoration areas, trail closures, and directions to toilets) shall be the minimum size possible to be easily seen, and shall be installed to minimize both physical impact upon the wilderness resource and psychological impact on the user. Whenever possible, universal symbols should be used on signs and signs should be worded to have positive psychological tone (i.e., “Please Camp Elsewhere” rather than “No Camping”). Signs shall be removed when their purpose has been accomplished.

6. Signing at wilderness trailheads may consist of trail direction signs, wilderness boundary signs, and essential official information or interpretive displays such as fire prevention, regulations governing use of the wilderness, and suggested wilderness behavior. Trailhead signs may include destination mileages.

7. Provide the minimum number of directional signs possible. These signs should be limited to one directional or destination indicator per leg of the trails at a junction.

8. Signs should not be used for directions to or within “General” or “Dedicated Trailless” areas.

9. Wilderness boundary signs should be placed at sufficient locations and distances so that outside activities will not encroach upon the wilderness. In the case of other management activities, project planning should include boundary posting.

10. Signs should not be provided for on-site interpretation within the Wilderness.

Administration - Preserve the integrity of the wilderness resource; provide uniform and consistent administration by all Ranger Districts; conduct necessary administrative activities most protective of the wilderness resource.

1. Wilderness Management implementation schedules shall be prepared yearly for each individual wilderness. These plans shall state specific local actions (prioritized pending yearly budget allocations). Action plans shall be approved by the District Ranger.

2. Coordination between adjoining National Forest and National Park Service units is expected to insure reasonable uniformity where necessary.

3. All administrative activity shall be conducted to minimize impacts on the social and biological resource. Installation of equipment for monitoring aerosol chemistry, precipitation, etc., necessary to assess air pollution impacts on AQRV's shall only be located inside wilderness areas when no representative locations can be found outside the wilderness. Permanent sample plots will be located away from commonly used areas. Field projects should be closely supervised to insure consistency with the goal and objectives of this plan.

4. Facilities such as cabins, trail shelters, or corrals, shall not be constructed or maintained for administrative purposes. The wildernesses of the Forest are not of sufficient size or of sufficient logistical complexity to warrant these structures in wilderness.

5. Coordination should be maintained with all state, county, and federal agencies as well as private landowners that use, or influence use of the wilderness, to promote understanding of the purposes of wilderness.

6. Entrance self registration or monitoring devices should be operated at wilderness trailheads.

7. Forest management activities outside of wilderness that influence the administration and visitor use of wilderness, shall carefully consider potential negative impacts on wilderness resources in the planning phases.

8. There will be one trained wilderness ranger per 30,000 acres or 20,000 visitor days of use.

Trails and Travel - To provide a range of challenges to wilderness users through a spectrum of access opportunities, including cross-country travel and trails of varying difficulty for horse and foot travel; to minimize physical and visual impacts upon the land, conflicts between users, and concentrations of use harmful to the wilderness resource.

1. Trails shall be designed, built, relocated, reconstructed, and maintained to provide a service appropriate for the planned use (as shown on the Wilderness WROS map). These trails shall comply with objectives of this plan.

2. Trails shall be managed to maintain a balanced spectrum of travel opportunities according to difficulty, mode of travel, distance, and type of destination. Standards for trail encounters within each of the five Wilderness WROS classes shall be adhered to. Segments that currently do not comply with the standards shall be identified. These segments should be listed in order of priority for meeting standards.

3. Trails should be reconstructed, rerouted or eliminated as needed to protect the wilderness resource and meet the objectives of each WROS class. Priorities should be identified in the trail plan and implementation schedule, Appendix E.

4. The practice of placing temporary plastic ribbons, cairns (not including summit carins), or other devices by visitors to mark informal trails shall be discouraged through visitor information. Such markers shall be removed as they are found. Climbing wands (when in use) are an exception. Wands should be removed after use by the climbing party.

5. Where other means are not practical to protect the wilderness, cairns may be located and maintained by the Forest Service.

6. Trail and trailhead construction and maintenance activities shall be accomplished with minimum impact on the wilderness resource and on the experience of wilderness users. Trailhead facilities shall be compatible with use and character of the area served.

7. Stakes and ribbons used to identify trail construction or reconstruction locations or other administrative activity shall be temporary and removed immediately after project completion. Tree blazes may not be used for pro-construction trail location. They shall be avoided to mark existing trail locations except where they are absolutely necessary in difficult to locate situations where other means of marking a trail are not possible.

8. Bridges and footlogs may be provided only when no other route or crossing is reasonably available for essential user safety. Bridges should not be installed for user convenience or installed to extend use season unless necessary to meet wilderness management objectives. Natural materials shall be preferred.

9. Trail locations and relocations should avoid wet areas and meadows. New trail drainage structures should be constructed of natural materials and designed to minimize their visual obtrusiveness. Drainage structures of non-native material will be replaced when trail reconstruction becomes necessary and will be hidden from view until replaced. Natural materials should be used whenever feasible.

10. Existing trails no longer compatible with the objectives of this plan should be abandoned and returned to as near a natural state as possible. Abandoned trails should be monitored periodically.

11. When possible, through-trails should be routed away from areas of concentrated use, such as lakes and popular campsites, to avoid unnecessary visitor contacts and environmental impacts.

Vegetation - Maintain the system of natural processes that governs the distribution of plant communities and ensure that natural biotic communities remain undisturbed except by those natural processes.

1. Non-native plant species should not be introduced. The possibility of accidental introduction through the use of pack and saddle stock should be minimized by prohibiting the use of hay and unprocessed grain as supplemental feed and encouraging the use of processed, weed-free feeds (i.e., pelletized rations).

2. Campfires should be prohibited at heavily used locations if analysis indicates that firewood is being used faster than natural accumulation. The supply of firewood shall be monitored at sites identified in yearly operating plans. If the amount is declining, use should be prohibited altogether.

3. The thrift, density and vigor of natural vegetation shall be monitored to determine the extent of alteration of the natural biotic communities by off site sources of air pollution. If confirmed changes are measured, pollution sources shall be identified and corrective actions initiated through provisions of the Federal Clean Air Act.

Collection of Resource and Use Information - Make collection of data in a non-obtrusive manner consistent with the preservation of the wilderness resource, (a) gain information needed to achieve and monitor the attainment of the objectives of this plan; and (b) acquire baseline knowledge needed to assess long-range natural changes, and direct and indirect human influence on the wilderness ecosystem.

1. The collection of resource and use information should be annually coordinated between Ranger Districts.

2. Site specific information concerning the location and amount of impacts on soil properties, water quality, vegetation, visibility and other physical characteristics of the areas resulting from recreational use or off-site pollution sources should be collected, maintained, and used in making future management decisions. The following are priorities and locations for assembling resource information in descending order of importance.

    a. Vegetation, soil condition, and trend information in heavily used camp areas near trails and at other impact areas, such as stock hitching areas, that appear to be near the limits of acceptable change.

    b. Baseline visibility conditions within those wilderness areas designated as Class I areas.

    c. Baseline conditions of water chemistry, vegetation condition, and aquatic ecosystems within those areas designated as Class I areas.

    d Baseline conditions of visibility, water chemistry, vegetation condition, and aquatic ecosystems within those areas designated as Class II areas.

    e. Vegetation and soil condition information in areas having high potential for resource degradation in the future.

    f. Baseline vegetation and soil information should be collected using permanent transects in camps, trails, and other areas that currently appear to be well within acceptable standards, but have some potential for future degradation.

3. Quantifiable information concerning the amount, season, and pattern of recreation use should be collected and maintained (including information necessary for RIM reporting) for use in making future management decisions. The following are priorities for obtaining use information:

    overall statistics required for annual RIM reporting; trails accessing the heavily impacted sites; and Transition Class areas.

4. University and other government researchers should be encouraged to conduct studies and collect additional data to assess recreation impacts and aid in establishing and revising carrying capacities.

Scientific Study - To provide for, and encourage scientific study dependent on a natural setting, that seeks to explain wilderness phenomena, and conducted in an unobtrusive manner consistent with preservation of the wilderness resource.

1. Research projects require Chief of the Forest Service or Regional Forester approval. Only those applications for research that are wilderness dependent and compatible with the goals and objectives of this plan shall be recommended for approval. Research activities that adversely affect the wilderness resource, the experience of users, or conflict with other wilderness objectives shall not be recommended.

2. Research that helps resolve wilderness management problems or basic research on wilderness shall be given highest priority, encouragement, and cooperation as administrative time and funding permit.

3. Data collected for management purposes, such as use figures and ecological data, should be made available to scientists for research purposes.

4. All research projects which require public contact, specimen collecting, ground reference marking or exemption from any regulations shall be conducted under a special-use permit.

Public Information - Make information about the wilderness, including management goals and objectives, available to the public to provide for and foster understanding of the natural processes which occur in the wilderness.

Actively attempt to direct use incompatible with wilderness to alternative areas by orienting the public, Forest Service employees, and users to the wilderness philosophy.

Encourage user behavior (No Trace ethic) which minimizes resource impacts and emphasize compliance with requirements or regulations.

1. Wilderness rangers, receptionists, and other Forest Service personnel who have contact with the public concerning the wilderness should be acquainted with wilderness philosophies, management goals, and current conditions within the wilderness. In contacts, they will direct non-wilderness activities to alternative areas, encourage suitable wilderness behavior, and create additional awareness, understanding, and appreciation of wilderness. While visitor contact may range from frequent to rare (depending on WROS class), the effect of contacts on user solitude or adventure should be minor.

2. Printed materials should contain information on wilderness management goals. Publishers and authors of trail, climbing, and other informational books should be encouraged to include minimum impact and other wilderness management messages in publications. Media contacts should be informed of new management goals and decisions as well as wilderness philosophies pertaining to the wilderness.

3. A wilderness map/brochure may be developed as needed. Supplemental publications may be developed and existing publications revised periodically to keep them current with management decisions and conditions.

4. Only trails that appear on the system trail inventory should be shown on Forest Service publications. Publishers of maps and guidebooks should be encouraged to follow a similar policy. All trails on trail inventories do not need to be shown on, or in guidebook publications.

5. Public involvement and user awareness programs should be used in solving management problems and to help gain acceptance of solutions among users, not to promote use per se.

6. Schools, colleges, and organized groups should continue to be involved in volunteer programs. Cooperating volunteers should be encouraged to assist managers in monitoring use, collecting and evaluating data, educating visitors and performing trail or revegetation projects.

Archaeological and Historical Properties - To recognize that cultural resources within and relating to the wilderness are a valuable, nonrenewable resource. To identify, evaluate, preserve, protect, and enhance these resources in compliance with federal and state laws and Forest Service policy.

1. All structures shall be evaluated for their historical significance, in accordance with 36 CFR 60.

2. Decisions to maintain, abandon, or remove structures which meet the criteria for the National Register shall be made in consultation with the State Historic Preservation Office, Advisory Council on Historic Preservation and other interested parties as outlined in 36 CFR 800. Abandoned structures should be allowed to deteriorate naturally. Retained or maintained structure shall be managed to have a minimum impact on the wilderness resource.

3. Decisions to remove structures shall be documented in an Environmental Assessment. Removal shall be by a practical method compatible with the goals of this plan and the site shall be restored to as natural a condition as is practical.

Fish and Wildlife - To provide habitat most conducive to a natural distribution and abundance of native species of fish and wildlife by allowing natural processes to shape habitat and interactions among species, and to encourage hunting and fishing practices in a manner consistent with the preservation of wilderness values under the Wilderness Act [Section 4(d8)].

1. The Forest Service should continue to work closely with the Washington Departments of Wildlife and Fisheries in all aspects of fish and wildlife management. Ranger District action plans shall address any specific coordination needs. Forest recommendations will be predicated on need for protection and maintenance of the wilderness resource, including fish and wildlife and their respective habitats. Hunting, fishing, and trapping shall be permitted in accordance with State Law under the same restrictions as other recreation use of the wilderness.

2. Manage to allow natural ecological succession, including natural infestations of insects, to operate freely in so far as they do not endanger significant resources outside of the wilderness.

3. Native species shall be maintained, with special emphasis on the preservation of threatened or endangered species, plus designated management indicator species and their habitats. Fish or wildlife indigenous to an area, may be re-established if previously eliminated by the influence of man.

4. Discarding of food or garbage that tends to alter the natural feeding behavior of wildlife should be discouraged through visitor education or regulation.

5. Fish stocking shall be allowed to continue where it is an established practice , however fish stocking may be reduced or stopped as one of a series of management steps designed to bring use within limits of acceptable change. Stocking should emphasize native species. Those water bodies that are naturally fish free, and where fish stocking is not an established practice, shall not be stocked.

6. Fish stocking of individual water bodies shall be limited to those methods used prior to establishment of the wilderness. Aerial stocking may be by fixed wing or helicopters. A record of fish stocking shall be developed and maintained, including an inventory of stocking dates, species and methods used.

7. Native species of fish should be favored in waters with a history of supporting such species. Waters known to contain native species should be identified in a stocking inventory.

8. Fire shall be allowed to play a more natural role in maintaining habitat diversity to insure a natural abundance and distribution of native wildlife species.

9. Improvements including habitat manipulation necessary for fish/wildlife management and in existence prior to designation are permitted, provided work is performed in a manner exerting the minimum impact on wilderness naturalness and solitude. Chief's approval is necessary.

10. Trails and camping areas shall avoid known habitat components including escape and thermal cover, goat kidding areas, travel corridors, mineral licks and others where human activities have been identified as disrupting use of the habitat. Existing trails and camps should be relocated to avoid harassment in these areas.

Livestock Use - To allow utilization of forage by recreation pack and saddle stock to the extent it does not jeopardize wilderness values.

1. Livestock use shall be managed so that native plant species will be maintained with special emphasis on the preservation of threatened or endangered species.

2. Available forage shall be used according to the following order of priority: wildlife, administrative livestock, recreation livestock, commercial packers, and commercial grazing allotments.

3. Pack and saddle stock shall be required to rely on processed hay or grain, or livestock feed (certified weed free).

4. Recreational livestock use on trails shall be limited to those identified as open and maintained for livestock use. The public should be made clearly aware of trails open and closed to livestock use. Information shall be available from administrative offices, trailheads, information brochures and all maps. Llama's will be considered as stock or pack animals, although requiring different management than horses.

5. Permanent corrals shall not be permitted for either public or commercial livestock. Hitch rails, ropes, and hobbles are the recommended methods.

6. Develop setback standards from lakes for grazing, hitching, tethering or hobbling of any pack or saddle stock.

Commercial Use - To allow utilization of forage for commercial allotments to the extent it does not jeopardize resource values and is in accordance with existing rights.

1. Because of vegetative changes, grazing allotments shall be evaluated to determine if they are capable of being continued as a viable commercial grazing allotment. If they are no longer capable, the allotment shall be terminated when the permittee no longer desires to use the area and/or relinquishes his permit. The available forage shall be allocated to wildlife and recreation livestock needs.

2. With respect to WROS Class, commercial stock should not be permitted to travel through Dedicated Trailless to reach permit areas.

Water - To preserve water bodies and stream courses in a natural state with *minimal* modification or human and animal caused contaminants.

1. Except as provided for in Section 4(d)(4) of the Wilderness Act, watersheds shall not be altered or managed to provide increased water quantity, quality, or timing of discharge.

2. Short-term weather modification activities which will produce only occasional, incidental, temporary, or transitory changes in the weather with carry-over effects on the ground lasting only a few days beyond the actual seeding period may be permitted. Long-term weather modification programs producing repeated or prolonged changes in the weather during any part of successive years and having substantial impacts on the wilderness resource shall not be permitted.

   Prior to any weather modification within the wilderness, formal application must be filed and be approved by the Chief of the Forest Service. The proponents must, through an environmental analysis accompanying their application, provide reasonable, scientifically supportable assurance that their activities will not produce permanent or substantial changes in natural conditions, nor will they include any feature that might reasonably be expected to produce conditions incompatible in appearance with the environment or reduce the values for which the wilderness was created.

3. Water yield measurements (including snow survey) shall continue to be read from the air or from the ground by primitive means, except as provided in for in the FSM.

4. Livestock and human use shall be regulated to maintain existing water quality levels equal to or exceeding Washington State Class AA and lake water quality standards. Any water body found to be below standard should be restored to the prescribed quality. See WAC 173-201-045 for standards.

5. Human activity should not influence the natural quality of any waters within wilderness beyond temporary changes that return to normal when activity ceases.

6. Constructed facilities such as trails or high-use campsites have high potential to result in accelerated erosion rates that are detrimental to water quality. Areas used by recreation visitors will be closely observed for evidence of accelerated erosion. Water sources and water bodies near campsites should be observed for evidence of soap, other chemicals, and biological contaminants that may be introduced by human activity.

7. Wilderness Action Plans will identify management actions to be implemented to correct water quality problems. Methods will be developed in the future to monitor physical, chemical, and biological changes in water quality.

Soils - To ensure that the physical properties of the soils and rate of erosion will not noticeably be altered from conditions naturally occurring and to allow processes of soil formation to operate unaltered by human activity.

Air - Maintain aerosol concentrations and particulate levels over the wilderness areas at levels that do not adversely effect identified Air Quality Related Values for each area.

1. Maintain an active role in the review of Prevention of Significant Deterioration Permit applications that have potential to impact wilderness areas.

2. Impacts on visibility and other AQRV's will be considered as a prescription perimeter when permitting natural ignitions to be used to accomplish prescribed fire objectives.

3. For further direction see the Air Resource section on page 4-XXX.

Mining and Minerals - To assure the rights of mineral claimants as specified in the Wilderness Act, while insuring that their activities create the least possible impact upon the wilderness resource.

When proposed mineral-related activities require the use of mechanized or motorized equipment or will cause impacts to the wilderness characteristics, a plan of operation must be submitted, processed and approved. During the evaluation of such a proposal not only will the environmental consequences be assessed and valid existing rights to conduct such activity confirmed prior to approval, but a determination will be made as whether the use of such equipment is reasonably necessary for and incidental to the level of exploration or development activity being proposed.

Management objectives for the administration of mineral activity in wilderness are as follows:

1. Mineral-related activities will be administered in compliance with all appropriate laws, regulations and Forest Service policy concerning wilderness management and the mining and mineral leasing laws.

2. Those conducting mineral related activities will be required to meet all Federal and State water quality standards, and will be required to reasonably minimize any adverse impacts to wildlife habitat and the wilderness characteristics of the area.

3. In keeping with any valid existing rights to operate mining claims or mineral leases, administrative efforts will be made to minimize any conflict between the mineral and the recreation users of wilderness areas.

4. When mineral-related valid existing rights have been confirmed, they will be recognized; and our policy will be to encourage and facilitate those activities while ensuring any adverse impacts to wilderness are minimized. In meeting this objective the technological feasibility and the cost of implementing any enforceable controls will be considered and kept to a reasonable level.

5. As-time permits or as wilderness-impacting activities are proposed, valid existing rights on all unpatented mining claims located within wilderness areas will be evaluated. As part of the validity determination process, mining claimants will be contacted and given an opportunity to participate in that process.

6. Rockhounding shall be treated as are other recreational activities within wilderness, and be regulated or restricted should damage to wilderness values occur.

Land Occupancy and Structures - Maintain the wilderness free from facilities and structures, except those necessary to protect the wilderness resource. Management objectives set forth in this plan and those exceptions permitted by Section 4(d) of the Wilderness Act shall be met.

1. All drift fences should be removed and less obtrusive methods for constraining livestock, including hitch rails, hitch ropes, or picketing methods used.

2. No roads, powerlines, telephone lines, water flow maintenance structures, reservoirs, or other improvements shall be permitted; except as authorized under Section 4(d) and 5(a) of the Wilderness Act.

3. Current water diversions should not be expanded. They should continue to be maintained by primitive means, unless NEPA analysis indicates that the work would cause unacceptable resource damage.

4. Occupancy, structures and use of motorized or mechanized equipment related to legitimate mining prospects shall be permitted to the extent allowed by law and regulations. Every reasonable effort should be made through the operating plan to minimize their effect on the wilderness resource.

5. Lands classified in ownership Group 1 should be retained or acquired as directed.

Fire Management - To permit natural fires to exert their effects on the vegetative patterns within the wilderness without endangering public safety or values outside the wilderness; to use suppression techniques which result in the least possible evidence of human activity; and to provide for a fire protection strategy which achieves the resource management objectives at least cost.

1. Naturally occurring fires shall be permitted to burn in specific areas, if they meet the prescription parameters for the zone. All naturally occurring ignitions are considered prescribed until declared wildfire.

2. A suppression decision matrix shall be used to determine appropriate suppression actions on fires. These decisions should be documented when the fire starts and should be reviewed by the District Ranger periodically throughout the duration of the fire. The most cost-efficient tactics within the goals and objectives of this plan should be utilized.

3. A prevention program, consisting of education and enforcement activities, shall be directed at maintaining a level of accidental fire occurrence not to exceed the current level of fires per year measured by a 10 year mean.

4. A public education program should be undertaken to explain the natural role of the fire in the wilderness ecosystems. The program should be undertaken before any prescribed fire is allowed within the wilderness.

5. Retardant may be used to contain any fire which exceeds the prescribed intensity levels and threatens acreage limitations or adjacent management areas.

6. Retardants with “fugative” color are preferred when available. These products begin with an orange-brown color and then become colorless in three to five days.

Aircraft

1. Private and commercial aircraft shall be discouraged below 2,000 feet above ground level.
2. Military aircraft shall be discouraged from overflight training missions.

3. The landing of aircraft within the wilderness is prohibited. Air dropping supplies is also prohibited. Exceptions may be granted for emergencies, significant administrative purposes, and fish stocking.

Search and Rescue - Search and rescue activities on National Forest Lands come under the jurisdiction of the County Sheriff in the county where an incident has occurred. The role of the Forest Service is to provide assistance, when requested, within the scope of the 1962 Memorandum of Understanding between the Forest Service and the Washington State Sheriff’s Association. A supplement to this agreement applies to winter search and rescue situations at Stevens and Snoqualmie Passes. Specific District procedures should be included in Annual Wilderness Action Plans.

Requests for use of motorized equipment or helicopters in search and rescue activities in wilderness, must be approved by the Forest Supervisor.

SOIL, AIR, WATER, AND RIPARIAN AREAS

Soil Resource

Goal: Maintain or enhance soil and land productivity.

1. Plan and conduct land management activities so that reductions of soil productivity potentially caused by detrimental compaction, displacement, puddling, and severe burning are minimized. Nutrient capital on forest and rangelands is to be maintained at acceptable levels as determined by state of the art technology.

2. Plan and conduct land management activities so that soil loss from surface erosion and mass wasting, caused by these activities, will not result in an unacceptable reduction in soil productivity and water quality (as stated in FSM 2500 R-6 Supp. 45 or as revised).

3. No more than 20% of an activity area may be severely burned, compacted, puddled, or displaced as a result of the activity. Only permanent features of the transportation system will remain in a detrimentally compacted, puddled, and/or displaced condition.

4. Surface erosion will be minimized by maintaining effective ground cover after cessation of any soil disturbing activity:

Erosion Hazard Class	Minimum Percent Effective Ground Cover	
	1st Year	2nd Year
Low	20-30	30-40
Medium	30-45	40-60
Severe	45-60	60-75
Very severe	60-75	75-90

5. Plan and accomplish rehabilitation projects as necessary to meet soil and water objectives and standards.

6. Areas classified as irreversible soils (S-8) will generally be considered as unavailable for road construction and timber harvest.

7. An area approximately 1/8 mile wide surrounding a confirmed 5-8 classification should be evaluated during project planning to determine if special management considerations may be required due to unstable soils and/or possible adverse effects caused to adjacent 5-8 soils. These special considerations might include practices such as: avoidance by roads, reduced unit size, scheduling to reduce frequency of harvest, and use of suspension. Refer to Forest Supervisor's 2550 memos of June 10, 1988, and January 2, 1990.

8. Other soils that are known to be unstable, but which are not sufficiently unstable to be classified as 5-8, will require special transportation planning, design, layout, preconstruction, construction, and maintenance techniques. Refer to Forest Supervisor's 2550 memos of June 10, 1988, and January 2, 1990.

9. Utilize soil surveys and/or soil scientists in project planning work that involves activities that affect or are affected by the soil resource.

Air Resource

Goal: Protect Air Quality Related Values of the forest to the extent necessary to achieve Plan goals and to execute management activities within the constraints of existing air quality laws and regulations.

1. New Source Review procedures of the Prevention of Significant Deterioration provisions of the Clean Air Act requires the Forest Service, as a Federal Land Manager, review the impacts of all proposals to construct or modify pollutant emitting facilities that may impact federal lands. Federal Land Manager acknowledgement of acceptable impacts is required before permit issuance by the Department of Ecology. The forest will maintain a line of communication with the Department of Ecology and other regulatory agencies to insure that permit reviews are accomplished.

2. All wildfires or prescribed fires that exceed applicable air quality regulatory standards will receive appropriate suppression action to minimize the impact to air quality.

3. The Forest Service will comply with all applicable air quality laws and regulations, and coordinate with appropriate air quality regulatory agencies.

4. The Forest must demonstrate reasonable progress in reducing Total Suspended Particulates (TSP) from prescribed burning activities. The State of Washington has defined "reasonable further progress" as a 35% reduction in the emission of TSP from prescribed burning by 1990 in western Washington.

5. The Forest air resource shall be protected against pollution sources outside Forest boundaries through application of the Prevention of Significant Deteriorations (PSD) regulations contained in the Clean Air Act. Special protection shall be afforded Air Quality Related Values (AQRV's) found in Class I wilderness. Information on both PSD's and AQRV's is available in the Air Resource Management Handbook.

Water Resources and Riparian Areas

Goal: Maintain or enhance water quality and riparian areas.

1. Limit acres of final harvest to meet the water quality and riparian management requirement. The management requirement, expressed as the maximum number of final harvest acres per FORPLAN Allocation Zone (watershed) per decade, is shown in Table 4-18.

2. Meet or exceed Water quality Regulations for waters of the State (Washington Administrative Code, Chapter 173-201) through application of Best Management Practices (see Glossary). The key beneficial uses which BMP's are designed to protect are fish and water for domestic use.

3. Use the existing process to implement the State Water quality Management Plan on lands administered by the USFS as described in a Memorandum of Understanding (MOU) between the Washington State Department of Ecology and U.S. Department of Agriculture, Forest Service (7/79), and "Attachment A" referred to in this MOU (Implementation Plan for Water Quality Planning on National Forest Lands in the Pacific Northwest 12/78).

4. Geographical boundaries of riparian areas will be determined by on-site characteristics. They are lands adjacent to perennial and intermittent streams, lakes, wetlands, ponds, springs (seeps), floodplains, or other wet areas.

5. Maintain the bank, flood plain, and shore stability of all wetlands, streams, lakes, and other bodies of water. (This standard applies above the high waterline on reservoirs.) Implicit in this standard are actions to prevent all forms of accelerated soil erosion and soil compaction, and the retention of the live root mat to the maximum practicable extent.

6. Riparian areas should be maintained in accordance with FSM 2526 MBS Supp. 01/81 or as revised.

7. Large woody material (plus trees) needed to meet the desired future condition shall be maintained and managed to: (1) maintain water quality in streamside management units of all streams at existing levels, and (2) maintain fish habitat at existing levels.

8. Maintain in-channel and streambank stability maintained for upper and lower channels in the Forest watersheds in order to provide stable, high-quality habitat for salmon and trout, and provide high quality water for other in-stream beneficial uses.

9. Maintain pool conditions in both upper and lower channels in the Forest watersheds to: (1) provide high quality habitat for salmon and trout, and (2) provide in-stream flow regulation.

10. Along perennial streams and fish bearing intermittent streams, vegetation should be maintained to provide cover and/or root strength so as to maintain streambank stability and fish habitat capability at existing levels.

11. Highly incised Class III streams shall be evaluated during the project planning process to determine if special measures may be required to protect significant riparian and/or associated riparian values.

    a. The evaluation should include an analysis of such factors as: soil stability, stream size and gradient, steepness and height of the inner gorge, and vegetative types. Depending upon these factors, special measures may be required which would include one or more of the following; stream clean out, intermediate tree marking, topping, directional falling away from the stream, yarding away from both sides, and full suspension across the stream. In all cases existing non-merchantable riparian vegetation should be maintained to the extent practicable.

b. In some cases, the lightly incised Class III streams have existing fish usage (anadromous and/or resident) that make potential fish habitat enhancement investments worthwhile. In the original stream classification done on the Forest, this potential was not known or recognized. For these Class III streams, fish habitat enhancement intensities from Management Prescription 13 may be applied.

c. As new information or additional data become known on a Forest stream (e.g. stream surveys, habitat improvement project data, other agency data), stream classification status may or may not require reclassification.

12. For class I, II, and fish bearing class III streams, the maximum daily temperature shall not exceed 65ºF. and the average 7 day maximum temperature shall not exceed 60ºF.. Exceptions must be based on scientific rationale, and must maintain the existing level of beneficial uses of the water, and be approved through NEPA analysis and documentation.

13. The Forest shall inventory and map riparian areas during project design and enter information and data into Forest-wide data base.

14. Consult with a hydrologist if the activity being planned involves riparian areas, wet lands, flood plains, or probable cumulative impacts on water resources.

15. Instream flow on National Forest System Lands should be protected through critical analysis (via NEPA) of proposed water uses, diversions, and transmission applications and renewal of permits. Protection of instream flow needs may be achieved through filing protests with States where applications are made that adversely affect National Forest resources, asserting claims for this water under Federal or State laws where applicable, inserting protection measures into special use permits, or reaching formal agreements over use. Purchase of water rights and impoundments are other means for reducing these impacts.

Table 4-18
Maximum Number of Acres that can be Final Harvested
by Allocation Zone (Watershed) by Decade

ALLOCATION ZONE No.	Name	DECADE 1	DECADE 2
Mt. Baker Ranger District			
2	ILLABOT CK	425	425
3	CHILLMUNRD	250	250
4	CANYON CK	100	200
5	LRNOFKNOOK	400	400
6	GLAMFNOOKN	280	280
8	MDFKNOOKUR	250	250
9	URNOFKNOOK	980	980
10	MDFKNOOKSO	200	200
11	SOFORKNOOK	325	325
14	SWIFT-PARK	250	250
15	BAKER	650	1025
16	BKLKUNRD	350	350
17	LKSHANNON	300	300
18	LKSHANUNRD	200	300
20	JACKCRMUR	200	325
22	MRSKRVMR	625	625
23	URSKAGITRV	330	330
26	CASCADE RV	1100	1100
27	LRSKAGITRV	75	75
28	LRSKRVMUR	550	550
29	DEER CK NW	100	200
30	FINNEY CR	100	100
31	DEER CR SE	0	0
32	DEERCRUNRD	110	110
38	SAUK RV NE	100	100
North Bend Ranger District			
70	TLTRVMUMUR	250	250
71	NFKSNQALMU	700	700
72	TAYLORALMR	250	250
73	MFKSNQALMU	350	350
74	URMFKSNQMU	800	800
75	PRATT-ALMU	650	650
77	SFKSNOQMU	200	200
81	URGREENRV	500	500
82	GREENRVNO	300	300
83	GREENRVSO	1000	1000

ALLOCATION ZONE No.	Name	DECADE 1	DECADE 2
Darrington Ranger District			
34	MRNOFKSTNO		
35	MRNOFKSTSO		
37	URNOFKSTIL		
39	SAUK RV SE		
40	SUIATTLERV		
41	SU-RVMUNRD		
42	WHITECHUCK		
44	CANYON CR		
45	SAUDRVUNRD		
46	LRSOFKSTLL		
48	URSOFKSTLL		
49	SAUKRVFORK		
Skykomish Ranger District			
47	SULRVUNRDN	200	200
51	SULRVURSE	300	300
52	SULTAN RV	100	100
53	NFSKYURSO	650	650
54	NFKSKYURNO	500	500
55	NOFKSKYRV	1060	1060
56	NFKSKYURW	310	310
57	SKYRVMUNRD	350	350
59	TYE RIVER	100	150
60	BECK-RAPID	3600	4000
61	SOFKSKYUR	240	240
62	SOPKSKYRV	270	270
63	SKY-TOLT	300	200
65	SFKSKYALMR	430	430
67	TY-BEC-MU	700	1000
68	FOSSRVALMU	500	500
69	MILLERALMU	200	200
White River Ranger District			
84	GREENWATER	650	880
85	LRWHITERV	250	250
86	CLEARWATER	407	407
90	HUCKLBRYCK	1300	1300
91	WFWHITERV	2000	2000
93	CARB-PUYAL	1150	1150

DIVERSITY AND LONG-TERN PRODUCTIVITY

Goal: Maintain native and desirable non-native plant and animal species and communities. Provide for all seral stages of terrestrial and aquatic plant. associations in a distribution and abundance to maintain the productivity of these biological communities.

General

1. Maintain or enhance plant and animal diversity by providing or developing an ecologically sound distribution and abundance of plant and animal communities and species at the forest stand, sub-drainage, and Forest level. This distribution must contribute to the goal of maintaining or enhancing all native and desirable introduced species and communities. Management Standards and Guidelines for all resources serve as a foundation for this distribution.

2. In addition, evaluate opportunities to maintain or enhance stand, sub-drainage, and Forest level components of biological diversity on an area-by-area basis as commensurate with management area direction. Specific opportunities include the following:

    a. Retain contiguous forest stands of later seral stages within drainages. Link patches of later seral stages with corridors of mid to late seral stages, such as riparian or visual corridors.

    b. Identify sub-drainage specific management objectives for fish and wildlife habitat and plants. These sub-drainage objectives should maintain or develop the habitat sizes, patterns, and spacing essential for allowing genetic interchange and movement of species.

    c. Where mature and old-growth forest stands are managed for wildlife habitat, select and manage for stand size, characteristics and spatial locations that will help support all plant and animal species closely associated with those habitats.

3. During project planning, develop site-specific management prescriptions that meet objectives for biological diversity and ecosystem function. In addition to other management direction, consider the following guidelines for maintenance of species diversity through commercial forest management:

    a. Conserve or enhance long-term site productivity, including wildlife habitat productivity, by maintaining, throughout the rotation, levels of large woody, as well as small fine materials, on the ground which are similar to those typically encountered in natural ecosystems of the appropriate type.

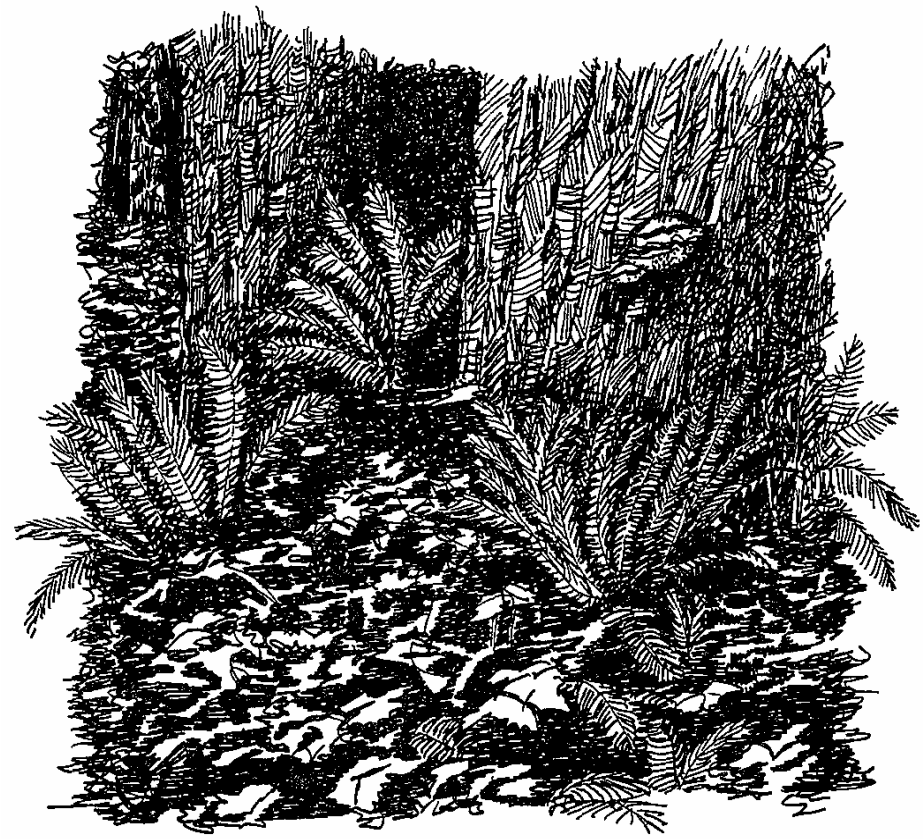
    b. Retain standing dead and standing green trees sufficient to maintain cavity nester habitat at or above 40% of minimum potential population levels, throughout the managed forest (80% in riparian areas). Retention trees and snags should be of the largest size class available in the stand, and should be selected considering safety regulations. Minimum numbers of desired species of retention trees should be determined by modeling the stand through its rotation, and

should be designed to meet current and future habitat needs. Where possible, leave wildlife trees at levels which will be similar to those typically found in natural ecosystems of the appropriate type.

c. Tree species used in planting harvest units should be based on the potential of the site as indicated by plant associations. Consideration should be given to regenerating and maintaining a mixture of species, where appropriate for the site.

d. Guidelines for commercial and noncommercial thinning should retain a diversity of species based on site potential.

e. Vegetation management should allow for all natural species to function. None should be eliminated from the site.



WILDLIFE HABITAT MANAGEMENT

Goal: Maintain a viable population of all native and desired non-native vertebrate species and maintain, protect, and improve habitat of management indicator species. The indicator species for this Forest are the American peregrine falcon, bald eagle, grizzly bear, northern spotted owl, pileated woodpecker, pine marten, mountain goat, and primary cavity excavators.

Management

1. As a minimum, provide sufficient numbers and sizes of live and dead trees throughout the Forest to maintain primary cavity excavators at the 40% population level using guides from Management of Wildlife and Fish Habitats in Forests of Western Oregon and Washington (Brown, 1985).

2. In addition to snags, large dead and down logs will be left. The number of logs and size specifications will be determined on a case-by-case basis using guides from Management of Wildlife and Fish Habitats in Forests of Western Oregon and Washington (Brown, 1985).

3. Nest sites actively being used by raptors or other bird species of special concern (ie; great blue heron) will be protected from human disturbance until nesting and fledging is completed. Protection of nest sites or areas will be sufficient for species involved. In project design, roost areas will be evaluated for the need for additional protection. Determination of protection area and seasons should involve consultation with a Wildlife Biologist.

4. Cliffs, talus, and caves are recognized as relatively unique habitats of the Forest and all potentially disturbing or altering management activities shall be carefully evaluated on the ground during the planning process to insure their protection and/or proper management.

5. Programmed activities in calving, fawning, and kidding areas should be discouraged. They shall be timed to minimize disturbance to the animals. This may require restricting access and operations during certain times of the year.

6. Provide a sufficient amount of available forage and optimal thermal cover to maintain viable populations of mountain goat.

7. Maintain a mix and distribution of successional stages that will support maintaining or enhancing diversity.

8. Provide highest levels of deer and elk habitat capability possible while still meeting other primary resource objectives.

9. Introduction of fish and wildlife species shall be carefully coordinated with the various State and Federal wildlife agencies and considered on a case-by-case basis through NEPA analysis.

10. During project design, surveys shall be made to determine the presence of or absence of mountain goat winter range. When identified, the area shall be maintained until an analysis can be completed and the need for a Plan amendment determined. Once the amendment is completed, the standards and guidelines for MA 15 shall apply.

11. Activities that adversely affect mountain goats on their spring and summer range shall be identified and mitigated.

12. Pileated woodpecker foraging areas shall be maintained by providing a sustained minimum average of two hard snags per acre > 10 inches d.b.h. on an additional 300 acres around each pileated woodpecker habitat management area.

13. Seed areas in identified winter range with big game preferred seed.

14. Maintain areas which serve as connecting habitat or travel corridors for indicator species. Future timber management of connecting habitat is not precluded as long as there are blocks of similar quality and age stands serving as connecting habitat in the adjacent area. These areas will be provided at intervals of 1/2 to 3 miles along a drainage, depending on the land forms, forest structure, and wildlife use of the area. Connecting habitat is defined as areas which serve as travel corridors or habitat connections, provide for the dispersal and interaction of indicator species, and avoid the isolation of habitat into geographic islands. These areas provide species access across drainages and elevation gradients (ridgeline to valley floor.)

    Connecting habitat can be provided by:

    a. Utilizing natural land forms when possible, such as riparian areas along creek drainages, or the areas adjacent to avalanche chutes.

    b. Maintaining areas in blocks of land that are generally one or more logical harvest units in size. This will provide the option of rotating the designation of connecting habitat to adjacent areas, as the adjacent harvested areas mature and develop the desired habitat structure.

15. For spotted owl pairs occupying non-network sites, protect the nest tree and an area around it. Disturbance will be minimized or eliminated adjacent to the nest during the nesting period. Seek technical assistance of the U.S. Fish and Wildlife Service and Washington Department of Wildlife in developing management strategies for these sites.

16. Areas proposed for timber harvest which contain habitat suitable for spotted owls will be surveyed according to standard inventory procedure. Maintain survey results in the Ranger District office and forward to the Forest Coordinator periodically.

FISH HABITAT MANAGEMENT

Goal: Provide a diversity of terrestrial and aquatic communities while maintaining water quality. This goal applies to all areas dominated by riparian vegetation, including areas containing anadromous and resident fish habitat, perennial and intermittent stream courses, lakes, wet lands, and flood plains.

Note: the Forest-wide Standards and Guidelines for Water and Riparian Areas also apply.

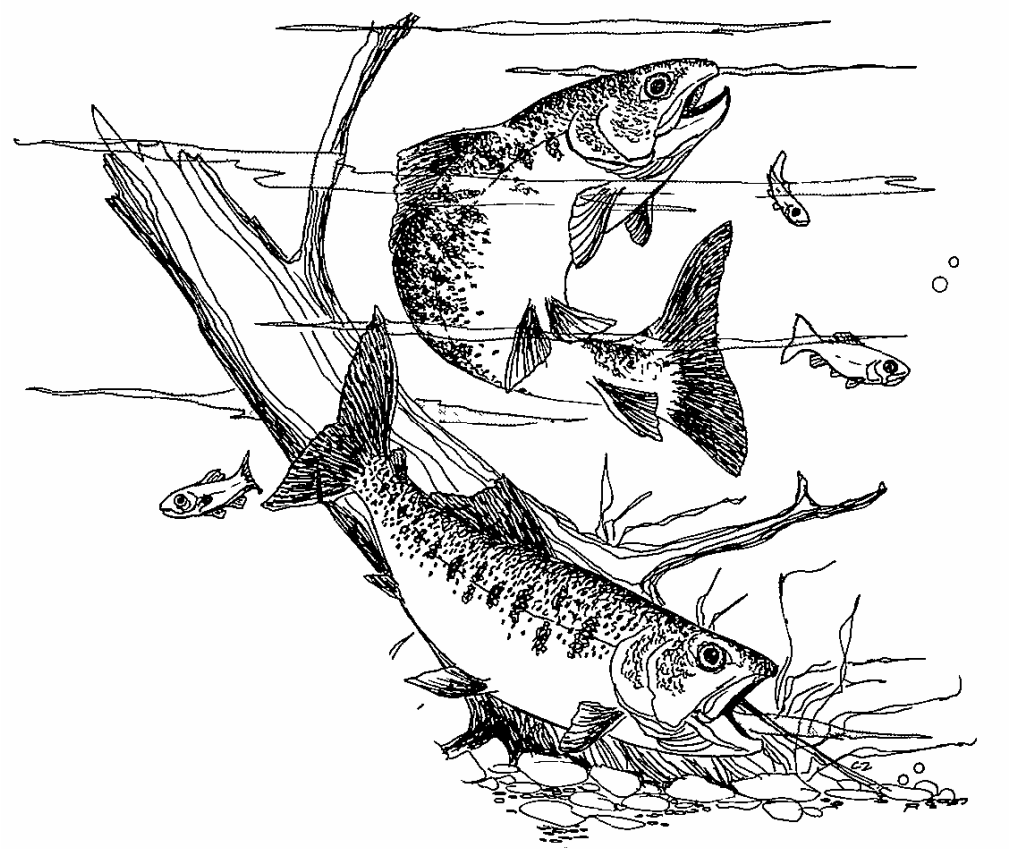
Management

1. Water quality shall be maintained or enhanced through application of Best Management Practices. This meets the requirements of the Clean Water Act and State Water Quality Standards (includes temperature, turbidity, and sediment).

2. Develop fish habitat restoration projects to rehabilitate lost or deteriorated habitat.

3. Cooperate with Washington Department of Fisheries and Department of Wildlife in providing a fish stocking program on the Forest (anadromous and resident fish).

4. All forest management activities should provide for unobstructed fish passage to historically accessible fish habitat.



THREATENED, ENDANGERED, AND SENSITIVE SPECIES

Goal: Maintain or improve habitat for all threatened or endangered (T&E) plant and animal species on the Forest, and manage habitats for all sensitive (5) species to prevent their becoming threatened or endangered. Management of threatened, endangered, and sensitive species habitats is addressed below and under Management Area 16, Threatened and Endangered Species. These Forest-wide standards and guidelines describe typical management practices in T&E habitats. The Forest will consult with the USD1 Fish and Wildlife Service in determining protection, enhancement, and mitigation measures for specific T&E habitat areas.

Overall Management

1. All proposed management actions which have the potential to affect habitat of endangered, threatened, or sensitive species will be evaluated to determine if any of these species are present.

   Biological evaluations will be completed for all proposed management activities which could affect T & E species. Management actions that may affect T&E habitat in any Management Area shall be guided by a Recovery Plan if one exists, and may only proceed after consultation with the USD1 Fish and Wildlife Service as outlined in Section 7 of the Endangered Species Act (ESA). Biological evaluations, when necessary, shall be prepared as described in Forest Service Manual 2670.

   When sensitive species are present, a Biological Evaluation shall be completed as described in Forest Service Manual 2670. Habitat for sensitive plants and animals shall be managed to ensure that management activities do not contribute to these species becoming threatened or endangered.

2. The Forest will initiate, support and cooperate with State and Federal fish and wildlife agencies in developing recovery plans for Federally listed threatened or endangered species. Where such plans conflict with other Management Area direction, the recovery plans will take precedence.

3. The Forest and Districts will cooperate in conducting inventories and keeping records of essential and/or critical habitat and its distribution for all T&E and sensitive species. Occupied habitats of threatened, endangered, and sensitive species will be monitored on a regular basis.

4. Collection of Federally listed threatened and endangered and R-6 listed sensitive plant species should only be allowed under permit. The issuance of permits must be preceded by the same degree of assessment required for other projects.

5. Before project decisions are made, consult with Federal, State, other agencies, groups, and individuals concerned with the management of T&E and sensitive species. In the design of projects for implementation where such species, areas, or habitats are known to occur, insure that appropriate action is taken to protect these species, areas, and habitats.

USD1 Fish and Wildlife Service will be consulted for technical information and ESA Section 7 consultation when a management activity may affect a threatened or endangered species.

The Washington Department of Wildlife will be consulted for technical information in development of species management guides, and in determinations of viable population levels of sensitive species. The Washington Natural Heritage Program will be consulted for technical information regarding sensitive plant species or unique plant communities.

6. The Forest shall develop site specific management plans for threatened and endangered species in accordance with recovery plans.

   Species management guides shall be developed for each sensitive species. These plans should be developed on a regular basis and in order of highest priority so that all guides are completed by the end of the tenth year after approval of the Forest Plan. Following the development of a management guide for a sensitive species, projects will follow the objectives of the management guide.

7. Known bald eagle nests and roost sites are managed under standards and guidelines in Management Area 16A, Bald Eagle. Additional bald eagle nests or roost sites identified in the future will also be managed under that prescription.

   If habitats for peregrine falcons, resident gray wolves or grizzly bear are identified in the future, the standards and guidelines for these species in Management Area 16, Threatened and Endangered Species, will supersede the existing management prescription for these habitat areas.

8. The following standards and guidelines apply to bald eagle feeding areas. They indicate the typical management practices for these areas and typical sizes for the management areas. However, protection and mitigation needs will vary depending on the individual habitat site and will be determined in each case in consultation with the USD1 Fish and Wildlife Service.

   a. The Forest will determine whether human activities are adversely affecting bald eagle use of feeding areas. Where these adverse effects are occurring, protection or mitigation measures will be identified arid implemented. These may include restrictions or controls on human uses of these habitat areas at certain times.

   b. Existing developed sites will not be expanded and increased human use will be discouraged when monitoring identifies a potential conflict with bald eagle use of feeding areas.

   c. Roads shall not be planned within 1/4 mile of known feeding areas. Reconstruction activities will be prohibited when feeding areas are in use.

   d. Construction of development projects near feeding areas should not be conducted during the time of bald eagle use.

e. Development of new commercial or private homesites is prohibited within 1/4 mile of shorelines used as part of feeding areas.

f. Require air space restrictions for low level aircraft in the vicinity of feeding areas during the season of habitat use.

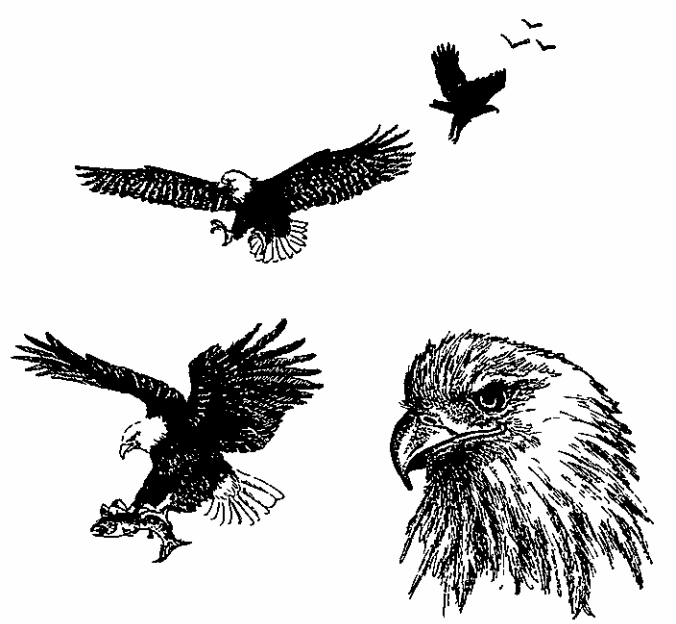
g. Timber management activities should be restricted within 1/4 mile of feeding areas during their season of use. There should be no treatment of fuels in feeding areas when in use.

h. Mineral activity shall be prohibited within 1/4 mile of shorelines used for bald eagle feeding.

i. In known feeding areas, perch trees within 200 feet of shorelines should be preserved.

9. Threatened, Endangered and Sensitive species of plants and animals are identified as important Air Quality Related Values. All permit applications to the Department of Ecology under the requirements of the Prevention of Significant Deterioration provisions of the Clean Air Act for modification or construction of pollution emitting facilities will be evaluated by the Forest for their potential impacts on AQRV's. Mitigating and monitoring requirements necessary for protection will be recommended for inclusion in any permits issued by the Department of Ecology.

10. All habitat improvement projects for Threatened, Endangered, or Sensitive species will be small-scale and experimental in nature until such time as species responses are better understood. When species response to a specific improvement project can be predicted, projects can be larger in scale and practical in nature.



TIMBER MANAGEMENT

Goal: Provide for the production of timber on lands classified as suitable for timber production consistent with various resource objectives, environmental constraints, and considering cost efficiency.

Suitable Forest Lands - Allowable sale quantity shall be programmed and harvested only on those lands classified as suitable for timber production.

Non-Declining Flow - The harvest schedule for any decade will be equal to or greater than the planned sale and harvest for the preceding decade of the planning period provided that the planned harvest is not greater than the long-term sustained-yield capacity consistent with the management objectives of the alternative (36 CFR 219.16(a) (2) (iv)).

Management Practices, Intensities, and Utilization Standards - The management intensities and utilization standards used in determining harvest levels are as follows:

1. Management Practices. Management intensities will vary with site productivity, timber species, other resource management objectives, and timing of implementation. Each of the following timber management practices may be used singly or in combination to determine the appropriate management intensity.

    a. Site preparation - chemical, mechanical, and prescribed fire.
    b. Genetic Tree Improvement.
    c. Reforestation by planting, seeding, or natural.
    d. Growing stock protection from animals, insects, and diseases.
    e. Release and weeding - chemical, mechanical, and prescribed fire.
    f. Precommercial thinning.
    g. Commercial thinning.
    h. Salvage harvest.
    i. Final harvest.
    j. Fertilization

2. Utilization Standards. Separate utilization standards are to be used in determining harvest levels for the first decade and future decades to the planning horizon. The standards displayed in the table below shall apply on the Forest, except where individual market areas or specific products present opportunities for standards specifying utilization of a higher proportion of the tree resource.

Table 4-19
Timber Utilization Standards

	Minimum DBH (Inches)	Minimum Top DIB (Inches)
Existing Timber Stands		
Final Harvest Size	9	6
Commercial Thinning Size	7	4
Regenerated Future Timber Stands	7	4

Culmination of Mean Annual Increment - Minimum rotation lengths will be based upon the length of time required to achieve volume production equivalent to at least 95 percent of culmination of mean annual increment. Exceptions are permitted for the use of sound silvicultural practices, for salvage or sanitation harvesting, or for the removal or a particular species of trees after considering the multiple objectives of the area.

Regeneration Assurance - When trees are cut to achieve timber production objectives, the cutting will be made so as to assure that lands can be adequately restocked within 5 years after final harvest [36 CFR 219.27(c) (3)]. Research and experience indicate that the harvest and regeneration practices planned can be expected to result in adequate restocking.

Adequate restocking for the Mt. Baker-Snoqualmie will meet the minimum stocking level for regeneration, as defined by a site-specific silvicultural prescription. Minimum stocking levels will generally be no lower than 190, well distributed established trees per acre. Five years after final harvest is defined as: 5 years after clearcutting, 5 years after final overstory removal in shelterwood cutting, 5 years after the seed tree removal harvest in seed tree cutting, or 5 years after selection cutting.

Created Openings

1. Forest openings created by the application of even-aged harvest cutting methods shall be limited to a maximum size of 60 acres in the Douglas-fir type of the coastal Douglas-fir zone, and to a maximum size of 40 acres for all other forest types in the Pacific Northwest Region. Exceptions are permitted for natural catastrophic events (such as fires, windstorms, or insect and disease attacks) or on an individual basis after a 60-day public notice period and review by the Regional Forester. In addition, the limits may be exceeded by as much as 50 percent without necessitating review by the Regional Forester, or 60 days public notice, when exceeding the limit will produce a more desirable combination of net public benefits.

   Created openings will be prescribed by the Silviculturist based on site objectives, site indicators and other site factors.

   These size restrictions may be increased 50 percent if any one of the following four criteria are met:

a. When a larger created opening will enable the use of an economically feasible logging system that will lessen the disturbance to soil, water, fish riparian resources, or residual vegetation. Such lessening is to be achieved by reducing landing or road construction, by enabling such construction away from unstable soil, or by reducing soil and vegetation disturbance caused by dragging logs.

b. When created openings cannot be centered around groups of trees infected with dwarf mistletoe or root rot and therefore need to be expanded to include these trees in order to avoid infection of susceptible adjacent conifers.

c. When visual quality objectives require openings to be shaped and blended to fit the landform.

d. Where larger openings are needed to achieve regeneration objectives in harvest areas being cut by the shelterwood method, and where destruction of the newly created stand would occur as a result of delayed removal of shelter trees. This exception applies only to existing shelterwood units and to shelterwood units under contract prior to approval of the Forest Plan.

2. A harvested area of commercial forest land will no longer be considered a created opening for silvicultural purposes when stocking surveys, carried out in accordance with Regional instructions, indicate prescribed tree stocking that is at least 4-1/2 feet high and free to grow (USDA, 1984b). When other resource management considerations (such as wildlife habitat, watershed needs, or visual requirements) prevail, a created opening will no longer be considered an opening when the vegetation in it meets a particular management objective stated in the Forest Plan.

3. Created openings will be separated by blocks of land that generally are not classed as created openings and that contain one or more logical harvest units. These areas shall be large enough and contain a stand structure appropriate to meet resource requirements of the Forest Plan. Resource requirements may include wildlife habitat, watershed, landscape management, and others. Contiguous harvest units (cornering or otherwise touching) are not precluded, but must be considered as a single opening which must be created within requirements for size, exception procedures, and justification.

   The total area of created openings contiguous to 30-acre or larger natural openings should normally not exceed one-third the size of the natural opening and not occupy more than one-third of the natural opening perimeter. Openings should not be created adjacent to any natural openings (regardless of size) unless adequate vegetation along the edge can be developed or retained in sufficient density to protect wildlife and visual management objectives. The determination of adequate vegetation will be made by an appropriate interdisciplinary team.

Silvicultural System - Even-aged silvicultural management has been determined, by experience and research, to be the optimum system for timber production on the Mt. Baker-Snoqualmie National Forest. (Refer to Appendix F in the FEIS.) Uneven-aged silvicultural system may be used, if necessary, to meet established requirements of other resources. Selection of a silvicultural system will be made with a site-specific analysis. Selection of the appropriate silvicultural systems will be guided by the following criteria and the land management allocation.

1. The selected silvicultural system must permit the production of sufficient volume of marketable trees to permit utilization of all trees which meet utilization standards and are designated for harvest.

2. The selected silvicultural system must permit the use of an available and acceptable logging method that has the capability to remove logs and other products without excessive damage to the identified desirable residual vegetation.

3. The selected silvicultural system must be capable of providing special conditions, such as a continuous canopy or continuous high density live root mats when required by critical soil conditions or needed to achieve management objectives such as streamside protection, wildlife needs, and visual resources.

4. The selected silvicultural system must permit control of existing or potential vegetation to a degree that establishment of number of trees, other desirable vegetation, and rates of growth as identified in site specific silviculture prescriptions for harvest areas can be achieved.

5. The silvicultural system selected must promote stand structure and species composition which avoids serious risk of damage from mammals, insects, disease, or wildfire and will allow treatment of existing insect, disease, or fuel conditions. Monoculture is to be avoided.

6. The silvicultural system selected must meet resource allocation and vegetation management objectives identified in the Forest Plan. Silvicultural systems for specific areas may be identified during the NEPA process.

7. Salvage harvest practices may be employed on suitable lands unless stated otherwise in a strategy.

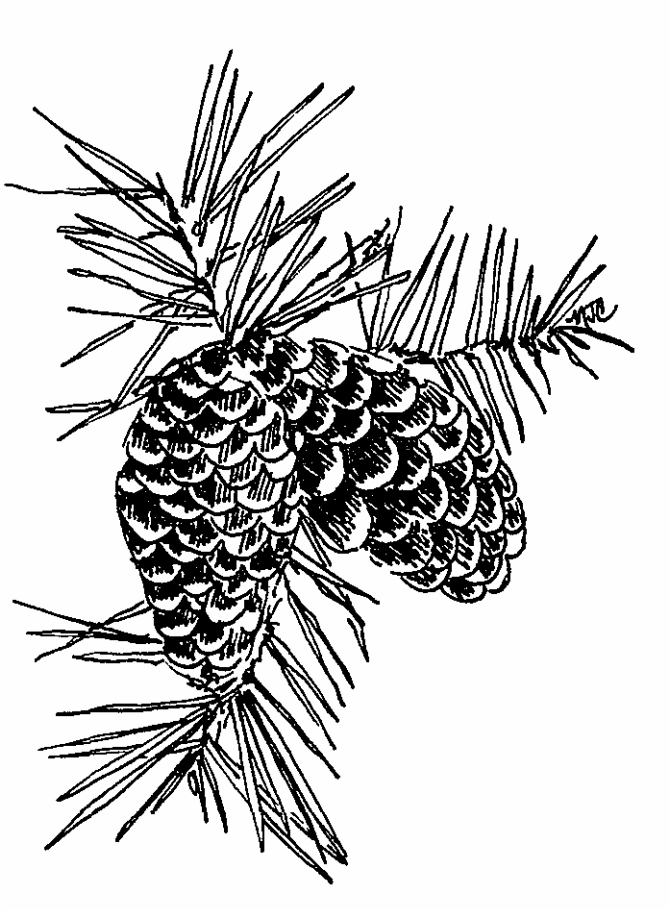
Vegetative Manipulation Activities - All vegetative manipulation activities related to timber management will be prescribed for or approved by a certified silviculturist.

Timber Volume Chargeable to Allowable Sale Quantity (ASQ) - The timber sale preparation final package must state the volume of timber in MMCF that is chargeable to the ASQ. All volume included in the growth and yield projections to calculate the ASQ is net live timber volume meeting Forest Utilization Standards, and is chargeable to the ASQ. All other timber not meeting these Standards, including most dead and down, shall be nonchargeable.

Catastrophically killed stands of timber which were included in ASQ calculations would normally be sold as chargeable.

Western redcedar

Favor the regeneration and management of' Western redcedar on those sites where it now occurs and on sites where environmental conditions are such that successful establishment and management would occur.

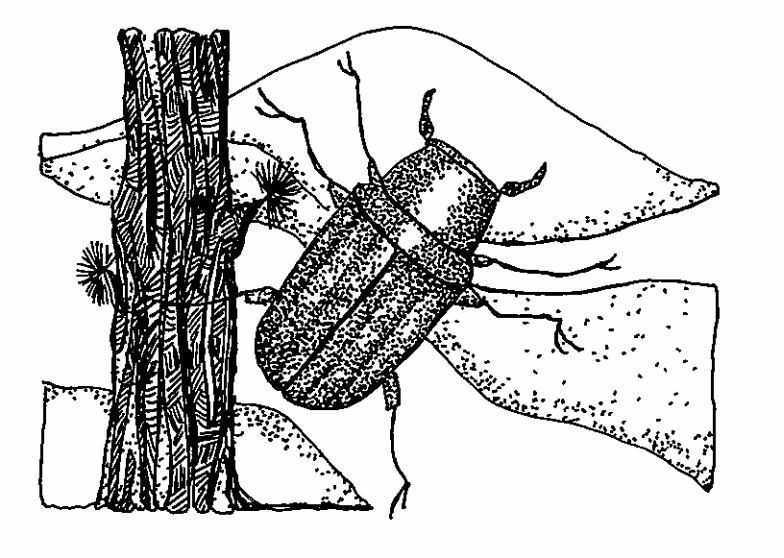


VEGETATION MANAGEMENT

Goal: Vegetation management and/or manipulation to meet objectives of the management areas.

1. Vegetation management and/or manipulation will follow the Record of Decision, Managing Competing and Unwanted Vegetation, Final EIS, Pacific Northwest Region, December 1988 (or as amended), the Mediated Agreement, and implementation direction.

2. Control noxious weeds to the extent practical. The following methods for control shall be used: mechanical, biological, access restrictions to prevent spread, seeding disturbed sails and use of herbicides. Small infestations of new noxious weeds (e.g. tansy ragwort should be eradicated as quickly as possible.



MINERALS AND ENERGY

Goal: Provide for exploration, development, and production of mineral and energy resources while minimizing effects on the surface resources.

Management

1. An appropriate environmental analysis and documentation will be used as a basis for making recommendations in leasing or licensing and in determining necessary stipulations for the protection of other resources.

2. Processing and administration of all mineral, oil and gas and geothermal leases, exploration proposals, and development proposals will be in accordance with State and Federal rules, regulations, and standards.

3. Mineral exploration and mineral removal are permitted throughout the Forest, except withdrawn areas.

4. All activities which involve significant disturbance of the surface resources require a notice of intent and/or an operating plan be submitted and processed in accordance with 36 CFR 228.

5. Reclamation standards will be developed to insure land restoration to a productive condition to the extent practicable. Opportunities to enhance other resources will be considered. Concurrent reclamation will be required and bonded.

6. Withdrawal of lands from appropriation or entry under the mining or mineral leasing laws will be in accordance with Section 204 of the Federal Land Policy and Management Act of 1976 (FLPMA). Areas with mineral potential will be recommended for withdrawal from mineral entry when mitigation measures would not adequately protect other resource values which are of greater public benefit. Review of existing withdrawals will be made by 1991 as required by FLPMA.

7. For mineral lease applications submitted by USD1 Bureau of Land Management, appropriate stipulations will be required for leases as necessary to achieve Management Area prescriptions. “No surface occupancy” stipulations will be incorporated in lease recommendations when: (a) surface occupancy would cause significant resource disturbance which cannot be mitigated by other means; (b) where resource impacts would be irreversible or irretrievable; or (c) the activity proposed is incompatible with the surface management prescription.

8. Common variety materials (including gravel pit sources) will be managed by lease, sale, or permit in accordance with the following criteria:

    a. Priority will be given to utilization of existing sources over development of new sources.

    b. Use will not be authorized where removal will conflict or interfere with prior authorization or Management Area prescriptions.

    c. Requests for use of common variety minerals will be processed as stipulated in 36 CFR 228, Subpart C.

    d. A development plan and appropriate NEPA documentation will be prepared prior to development of new common variety mineral sources.

LAND USES

Goal: To be responsive in the consideration of the use and occupancy of the Forest by private individuals, Federal, State, and local governments when such use is consistent with Forest management objectives, is in the public interest, and cannot be reasonably served by development on private land.

General

1. Special use evaluation, permit issuance, fees and administration will be in accordance with Forest Service Manual 2700 or as revised, and 36 CFR 251.
2. In considering special use applications, the needs of the general public will be given priority over the applicant.
3. Land to be used will be suitable for the proposed use and kept as small as is consistent with the intended use. National Forest land will not be made available for private development when suitable private land is available to support needs.

4. Provisions will be made to protect land and resources of the National Forest. Forest Service will approve location of all developments, designs, and plans for construction of facilities.

5. Applicants should be required to furnish necessary environmental analysis, other required studies, plats, etc., and provide funds for administration of the permit.

6. New resort activities, plus recreation and concession proposals will be selected through a competitive process if interest is shown by several parties.

7. Applicants for sites and facilities will be directed toward use of sites in the following order:

    a. Utilizing capacity of existing approved sites.

    b. Utilizing new sites through and following an environmental analysis. Site plans should be prepared prior to installing facilities.

Right-of-Way Grants and Acquisition

1. Grant needed easements to State and local governments for existing and relocated roads and highways. Follow 36 CFR 212.8, 9, 10, and 11 in granting and acquiring access across lands and easements administered by the Forest Service.

2. Acquire road and trail rights-of-way across non-National Forest land to implement and support resource management activities. Coordinate with intermingled and adjacent landowners, plus State and local government in developing roads or road systems that serve the needs of all parties.

3. Where appropriate, the Forest will enter into and continue existing cost share agreements. The Forest Cost Share program will be managed according to principles established in FSM 5467 and the deeds.

4. Grant access to private property in accordance with Federal rules, regulations and standards.

Landlines - Survey and mark boundaries to accomplish the following priorities:
(1) protect present corners or references when the possibility of disturbance exists, (2) resolve or prevent encroachment, (3) assist forest users in identifying public lands, and (4) to help assure full utilization of National Forest resources.

Utility and Transportation Corridors

1. Future memoranda of understandings, project maintenance and construction plan will meet Forest Standards and Guidelines and Management Area 25 management direction.

2. When applications for rights-of-way for utilities and highways are received, the Forests' first priority will be to utilize residual capacity (within or contiguous) in existing corridors. The corridors will be planned and located to minimize ground and air disturbance.

3. The Forest will consider only that area between Pyramid Peak and Tacoma Pass as a potential new major cross Cascade utility corridor. This corridor will only be considered after the existing corridors have been utilized to their maximum.

4. Potential utility and transportation rights-of-way will be examined in relation to issues and concerns and resource management objectives.

5. Routes through wilderness are excluded from consideration as utility or transportation corridors. Routes through Management Areas 1A, 1B, 1C, 3A, 3C, 3D, 4, 5A, 58, SC, 7, 11, 12, 13D, 15, and 18 shall be avoided during consideration of utility or transportation corridors.

Other Uses - Applications for licenses or grants associated with dams and reservoirs shall be recommended for approval when they are consistent with the Management Area goals and objectives.

LAND ADJUSTMENTS

Goal: To provide an optimum pattern of landownership within the Mt. Baker-Snoqualmie National Forest considering resource goals and efficiency of managing the Forest.

Landownership Classification

1. All National Forest land and land in other ownerships within the forest boundary will be classified into one of five landownership classification groups. This classification system identifies opportunities to acquire, retain, exchange, or relinquish lands to facilitate administration of the Forest.

   Group Definitions.

   a. Group I - This group includes those lands where Congress has either directly or indirectly instructed the Forest Service to retain ownership and acquire non-Federal lands for a designated purpose.

   b. Group II - Landownership direction for Group II lands is to retain National Forest ownership and acquire private land as the opportunity and/or need occurs.

   c. Group III - These lands will be available for land adjustment and usually will provide most of the land considered in exchange projects.

   d. Group IV - Lands in this group are normally made available to acquire private land in Groups I, II, or III areas.

   e. Group V - This group includes situations where it is determined that a more intensive study and planning are necessary before landownership decisions are made.

FACILITIES

Goal: Provide and manage roads, facilities, and utility systems required to protect and manage the Mt. Baker-Snoqualmie National Forest.

Roads

1. Planning.

    a. The Forest Transportation System will be planned to serve long-term multiple resource needs as provided in Management Area direction.
    b. Maintain the Forest Road Management Plan.

2. Construction. Roads will be designed, constructed, and/or reconstructed according to standards appropriate to planned uses, activities, safety, economics, and impacts on lands and resources using criteria in FSM 7700 and 7720 or as revised.

3. Operations and Maintenance.

    a. Operate, maintain, and/or close roads to meet established road management objectives and safety.
    b. Where appropriate, the Forest will enter into and continue existing cost share agreements.
    c. Close and return to the planned resource use all roads not on the Forest Development System or authorized by permit, lease, or easement. Measures will be taken to prevent excessive resource damage.

    d. Develop and implement projects to correct road related water quality, anadromous fish habitat, and other resource problems.

Facilities

1. Facilities will be managed to support Forest Management Objectives.

2. Barrier free access will be provided in facilities when mandated by Washington State Law or by Forest Service policy.

3. Facility alterations will be accomplished in conformance with the cultural management requirements of the site.

4. All new facilities on the Forest should employ the Cascadian architectural style. The Cascadian style is a variety of rustic architecture. It's character-defining elements are described in Appendix A of the Internal Management Guidelines for Depression-Era Buildings.

    a. Design shall borrow from, but not duplicate, the elements of Cascadian design.

    b. Design shall emphasize the use of wood and other Forest resources.

    c. Use wood frame designs in administrative sites, except in the immediate vicinity of existing log buildings.

d. Use contemporary wood products in public interior spaces where they will be dominant and seen.

e. Vary interior and exterior textures. Shake roofs, alternation of direction and pattern of siding, rough-sawn wood textures and occasional stone treatments on prominent walls will create visual interest.

f. Use heavy posts of wood or stone for porticos and interior columns.

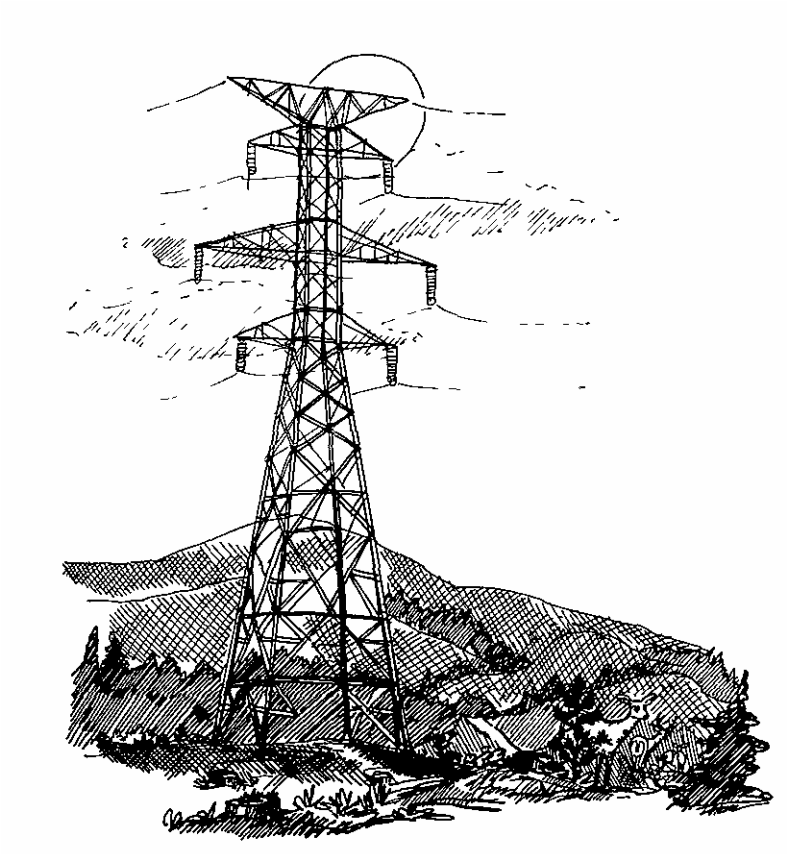
g. Windows can be aluminum, but should be darkly anodized. Consider using snap-in mullions.

h. Establish an integrated paint scheme for building groups. Use earth tones. All buildings on a site need not be the same color (for example, office, residential and service buildings might each have a distinct color treatment, within an integrated scheme).

1. Design steep roof pitches of gable and hipped gable structure.

j. Proportion and align floors, windows, eaves, roof heights, building setbacks and building axes to adjoining buildings.

k. Match the scale of adjoining buildings.



PROTECTION

Pest Management

Goal: Protect forest and range resources from unacceptable losses due to destructive forest pests.

1. Develop and practice the use of Integrated Pest Management (1PM) prevention and suppression strategies. Methods may include management practices (cultural or silvicultural), biological, mechanical, manual, prescribed fire and/or chemical treatments, and regulatory measures. Prevention and suppression methods will be based on environmental analysis.

Fire

Goal: Provide and execute a fire protection and fire use program that is cost efficient and responsive to land and resource management goals and objectives.

1. All wildfire will receive an appropriate suppression response utilizing a strategy of confine, contain, or control.

2. Wildfires that threaten life, property, public safety, improvements, or investments will receive aggressive suppression action using a control strategy.

3. Prescribed fire will be considered for use in meeting management objectives in areas where ecological studies show that fire has played a significant role in ecosystem development.

4. Prescribed fire will be utilized only when careful analysis indicates that it will be cost effective and practical. This analysis will include consideration of measures to mitigate impacts on air quality, such as increased removal of slash from the site, reduction of acres to be burned for hazard reduction, and ignition and burning techniques that reduce fuel consumption.

5. Maintenance of air quality will be a key factor in planning prescribed fire use. Consideration will be given to mitigation measures, such as burning during a longer season to spread emissions throughout the year, avoidance of burning near recreational units during times of peak use, and coordination with State smoke management plans.

Fire Management Direction

Fire Protection: GROUP A Area: 315,000 acres

Applicable Management Areas: 2A, 2B, 3A, 3B, 3C, 3D, 7, 8, 11,12,16A, 23A, 25A, 25B

Recommended Fire Prevention Intensity: Moderate

Recommended Fire Suppression Strategy: Control

Fire Suppression Direction:

Appropriate suppression action will be taken on all wildfires within the area these allocations apply. A contain or control strategy will be utilized on human caused fires and other wildfires which threaten cultural resources, capital investments, or other areas where preservation of existing vegetation is desired.

Prescribed Fire Direction:

Prescribed fire may be used to accomplish specific resource management objectives if it is the most cost effective method to use. All projects will recognize air quality *and* smoke management constraints. Unplanned ignitions may be used if they occur when prescription parameters needed to accomplish the prescribed fire objectives for the area can be met.

Operational Constraints:

Economic efficiency, guided by the maximum fire size constraint, will control the intensity of fire suppression efforts. The full range of suppression tactics and tools are available, although those with the least impact on the ground are preferred. Control or contain actions will be taken on any fire which has the potential to exceed the maximum fire size constraint for these allocations. Mop-up actions will be consistent with and insure the success of the suppression actions taken.

Fuel Management Objectives:

Activity fuels will be treated to the level necessary to achieve the expected resource objectives of the area. Normally this will be to return the area to as near natural appearance as possible. Natural fuels will not be treated except where necessary to meet specific resource or activity objectives.

Fire Management Direction

Fire Protection: GROUP B Area: 730,000 acres
Applicable Management Areas: 4, 10A, 10B, 10C, 10D, 10E

Recommended Fire Prevention Intensity: Low

Recommended Fire Suppression Strategy: Confine Natural Ignition.
Contain or Control Human Caused Ignitions

Fire Suppression Direction:

All wildfires will receive appropriate suppression action. Contain or control strategies will be used when wildfires threaten identified cultural sites or improvements or has the potential to leave the wilderness area and result in unacceptable damages. A confine strategy will be used elsewhere.

Prescribed Fire Direction:

Natural ignitions occurring under conditions that satisfy specific prescription parameters for the area may be used to accomplish wilderness objectives that are achievable through prescribed fire. Accidental human caused fires will not be used to accomplish prescribed fire objectives and will be suppressed. Planned ignitions may be used where necessary to meet wilderness management objectives.

Operational Constraints:

Containment or control actions will be in accordance with wilderness suppression guidelines (FSM.) Indirect attack utilizing natural barriers and changes in vegetation and topography will be utilized whenever possible. All actions will minimize disturbance to vegetation and soil. Helicopters may be utilized if they are the most cost efficient method of accomplishing the job. Natural openings will be utilized as helispots whenever possible. Clearing will be held to a minimum. Power saws and other mechanized equipment will be used only after Forest Supervisor approval. Air tankers will be used only on wildfires which threaten non-wilderness values. Mop-up will be limited to that necessary to maintain the integrity of contain or control objectives when applied.

Fuel Management Objectives:

Treatment of activity fuels will be consistent with wilderness management objectives.
As with other activities, the method least impacting on the land and vegetation will be the preferred method if disposal is necessary.

Fire Management Direction

Fire Protection: GROUP C Area: 288,000 acres

Applicable Management Areas: 1A, 1B, 1C, 10

Recommended Fire Prevention Intensity: Low

Recommended Fire Suppression Strategy: Confine, Contain, or Control

Fire Suppression Direction:

Appropriate suppression action will be taken on all wildfires within the area this allocation applies. The contain or control strategies will be utilized when wildfires threaten cultural resources, capital investments or other areas with more constrained fire management direction.

Prescribed Fire Direction:

Prescribed fire may be utilized to accomplish specific resource management objectives if it is the most cost efficient method. All projects will recognize air quality and smoke management constraints. Unplanned ignitions may be used if they occur when prescription perimeters needed to accomplish the prescribed fire objectives for the area can be met.

Operational Constraints:

Economic efficiency rather than a specified acreage constraint will control the intensity of fire suppression efforts. The full range of suppression tactics and tools are available, though those with the least impact on the ground are preferred. Contain or control actions will be taken on any fire which has the potential to exceed the annual maximum allowable burned acreage for this allocation. Mop-up actions will be consistent with insuring success of contain or control actions where deployed.

Fuel Management Objectives:

Activity fuels will be treated to the level necessary to achieve the expected resource objectives of the area. Normally this will be to return the area to as near natural appearance as possible. Natural fuels will not be treated except where necessary to meet a specific resource or activity objective.

Fire Management Direction

Fire Protection: GROUP D Area: 68,000 acres
Applicable Management Areas: 5A ,5B, 5C, 6, 13
Recommended Fire Prevention Intensity: Low

Recommended Fire Suppression Strategy: Control

Fire Suppression Direction:

Control all wildfires at 5 acres or less.

Prescribed Fire Direction:

Prescribed fire has limited application in this allocation. Maintenance of total vegetation cover is critical to meeting resource objectives. Some burning of piled debris may be utilized.

Operational Constraints:

Avoid the use of ground disturbing equipment within 100 ft of water courses. Avoid the use of retardant within 200 ft of water courses. Firelines should be located away from stream courses. If possible maintain at least 50 ft between the stream course and firelines. Tactics which maintain the greatest proportion of riparian vegetation are preferred. Mop-up should be aggressive and directed at retaining as much riparian vegetation as possible.

Fuel Management Objectives:

Natural fuels shall be left in place for soil stability. Activity fuels
shall be treated to (1) a level that results in a fire intensity of no more than Class 3 (Flame Length 4 to 6 Ft) when measured 3 years from creation under median summertime weather conditions or (2) meet specific resource need, whichever is lower.

Fire Management Direction

Fire Protection: GROUP E (1) Area: 143,000 acres

Applicable Management Areas: 14, 15A, 17, 19, 21

Recommended Fire Prevention Intensity: Low

Recommended Fire Suppression Strategy: Control or Contain

Fire Suppression Direction:

Suppress all wildfires at 50 acres or less using the most cost efficient suppression tactics. An exception to this would be in those areas where this allocation abuts one with a more stringent objective or when private land boundaries are threatened. In these situations a 10 acre control objective is appropriate.

Prescribed Fire Direction:

Prescribed fire may be utilized to accomplish specific resource management objectives. Plans must be accompanied by an evaluation which indicates it to be the most environmentally and cost effective method to meet the objectives. Only planned ignitions will be utilized. All projects will be executed in accordance with air quality and smoke management guidelines.

Operational Constraints:

Direct attack will normally be used under Fire Intensity Level (FIL) I and 2 conditions and indirect attack methods used under FIL 3+. Mop-up will be of sufficient intensity to maintain the control integrity. The full range of suppression techniques is available.

Fuel Management Objectives:

Natural fuels will be treated only when necessary to meet a specific resource or activity objective. Treatment of activity fuels to meet specific resource or activity objectives will in most cases achieve residue loadings compatible with protection needs of this area. Except where environmental constraints prohibit it, the projected fire intensity caused by the presence of activity fuels should not exceed FIL 3 when evaluated at a point in time three years after creation under median weather conditions for the area.

Fire Management Direction

Fire Protection: GROUP E (2) Area: 103,000 acres

Applicable Management Areas: 17, 21, 22

Recommended Fire Prevention Intensity: High

Recommended Fire Suppression Strategy: Control or Contain

Fire Suppression Direction:

Suppress all wildfires at 25 acres or less using the most cost efficient suppression tactics. An exception to this would be in those areas where this allocation abuts one with a more stringent objective or when private land boundaries are threatened. In these situations a 10 acre control objective is appropriate.

Prescribed Fire Direction:

Prescribed fire may be utilized to accomplish specific resource management objectives. Plans must be accompanied by an evaluation which indicates it to be the most environmentally and cost effective method to meet the objectives. Only planned ignitions will be utilized. All projects will be executed in accordance with air quality and smoke management guidelines.

Operational Constraints:

Direct attack will normally be used under Fire Intensity Level (FIL) I and 2 conditions and indirect attack methods used under FIL 3+. Mop-up will be of sufficient intensity to maintain the control integrity. A full range of suppression techniques are available.

Fuel Management Objectives:

Natural fuels will be treated only when necessary to meet a specific resource or activity objective such as wildlife habitat, site prep, etc. Treatment of activity fuels to meet specific resource or activity objectives will in most cases achieve residue loadings compatible with protection needs of this area. Except where environmental constraints prohibit it, the projected fire intensity caused by the presence of activity fuels should not exceed FIL 3 when evaluated at a point in time three years after creation under median weather conditions for the area.

Fire Management Direction

Fire Protection: GROUP E (3) Area: 37,000 acres

Applicable Management Areas: 17,21,

Recommended Fire Prevention Intensity: High

Recommended Fire Suppression Strategy: Control or Contain

Fire Suppression Direction:

Contain all wildfires to essentially the cutover area within which they start except those fires which threaten private property or equipment will be controlled at the least practical acreage, usually 10 acres or less.

Prescribed Fire Direction:

Prescribed fire may be utilized to accomplish specific resource management objectives. Plans must be accompanied by an evaluation which indicates it to be the most environmentally and cost effective method to meet the objectives. Only planned ignitions will be utilized. All projects will be executed in accordance with air quality and smoke management guidelines.

Operational Constraints:

Indirect attack utilizing vegetation type changes, i.e. leave strips or mature timber, should be used whenever practical Mop-up will be of sufficient intensity to maintain the contain integrity. A full range of suppression techniques are available except that air tankers will normally only be used along unit boundaries except where private land or equipment is involved.

Fuel Management Objectives:

Natural fuels will be treated only when necessary to meet a specific resource or activity objective such as wildlife habitat, site prep, etc. Treatment of activity fuels to meet specific resource or activity objectives will, in most cases, achieve residue loadings compatible with the protection needs of these areas.

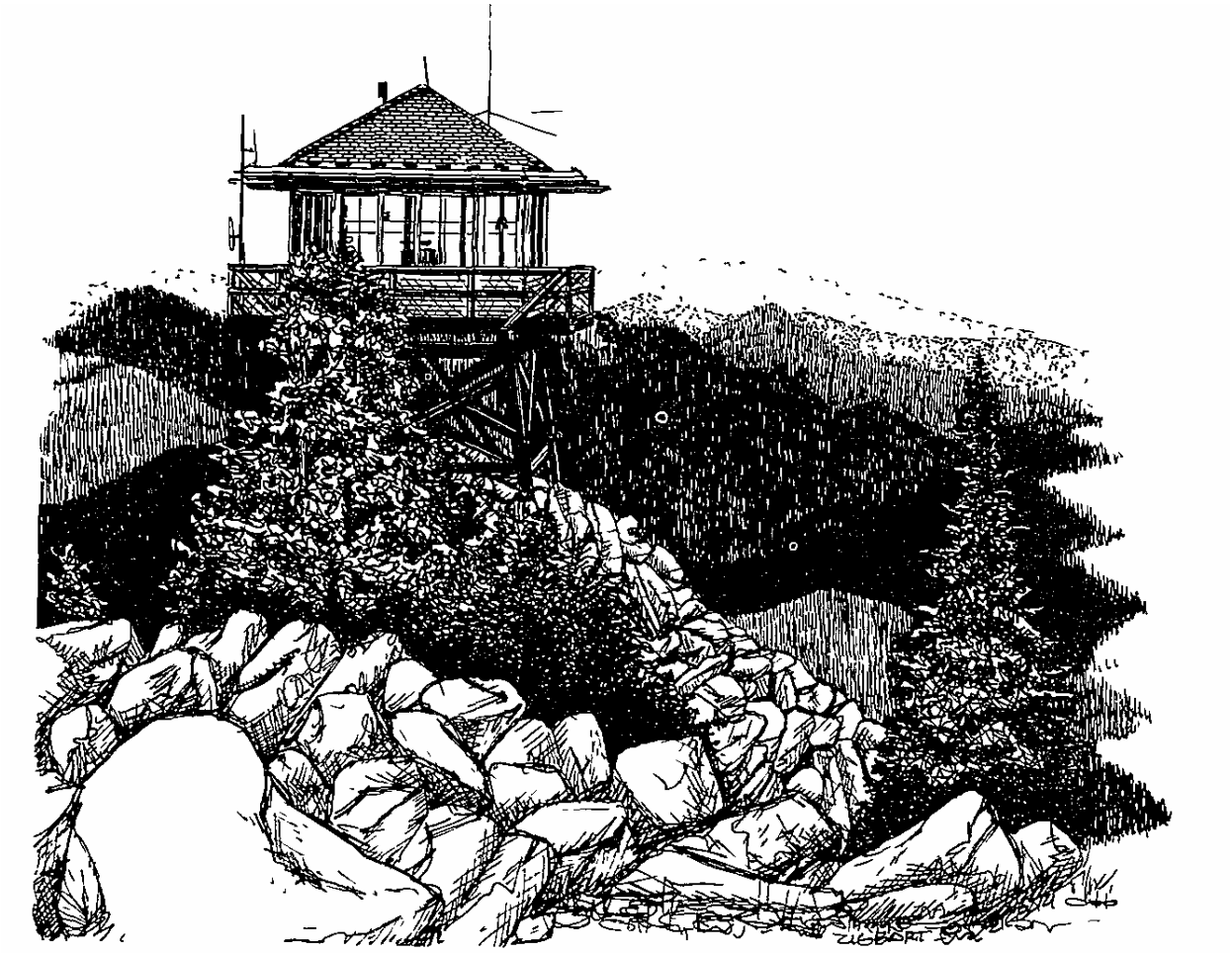
Except where environmental constraints prohibit achievement, the projected fire intensity caused by the presence of activity fuels should not exceed FIL 3 when evaluated at a point in time three years after creation under median weather conditions for the area.

Fire Prevention Plan

The achievement of the expected outputs from the various prescription and land allocations is affected by many variables. Maintaining losses from wildfire at or below the levels for each allocation is one of these. The protection objectives anticipated are met through a combination of prevention, detection, presuppression, preparedness, fuels management, and fire suppression activities. This plan details the prevention actions proposed as part of the total protection program needed to meet the land management objectives.

The various land management prescriptions and allocations have different risks of human-caused fires associated with them. They also have different constraints to the extent that wildfire can be tolerated without adversely impacting the expected outputs. In order to recognize these differences and to maintain a cost effective program, we have developed a graduated program which varies the level of prevention emphasis with the need to insure that expected outputs are met.

Three levels of prevention emphasis have been developed. Each prescription and/or land allocation has one of the three prevention levels associated with it. The individual levels contain specific direction relative to personal contacts, regulation of uses, signing, inspections and law enforcement and mass media programs. The specific action under each vary as the prevention intensity increases.



Prevention Levels

METHOD	I LOW	II MODERATE	III HIGH
Public Contacts	1. Incidental-done as a part of other contacts. Message content designed to maintain general fire awareness. 2. Fewer than 10% of the users will have direct contact during the fire season.	1. Contacts are secondary to other purposes but have a specifically designed message and target. 2. Message should emphasize the damaging effects of wildfires. 3. Fewer than 25% of the users should be contacted during the fire season.	1. Contacts are specifically for conveying fire prevention messages or the enforcement of regulations. 2. Messages should emphasize the costs of wildfires as well as the damaging effects. 3. Individual messages should be targeted to specific problems, areas, or users. 4. A minimum of 50% of the industrial users should be contacted during the fire season, and 20% of the non-industrial users.
Regulation of Fire Use	1. Normal CFR's, state laws and contracts or permit provisions are sufficient to control starts. 2. Restriction on specific uses or activity will be limited to periods of critical fire risk.	1. Normal CFR's. 2. Restrictions on specific uses may be initiated during portions of the fire season.	1. Specific restrictions on use of fire and spark omitting equipment may be initiated during the fire season. 2. Restrictions will be designed to address specific groups of users or types of activities.

Prevention Levels, continued

METHOD	I LOW	II MODERATE	III HIGH
Signing	1. Conducted as part of the general information signing for the area.	1. A limited amount of general information and motivational signing should occur.	1. The actions in Level I and II should occur.
	2. Prevention messages should be both general and positive. Main theme should be motivational in nature.	2. Special prevention messages posted along travel routes and at destinations.	2. Additional signing should include fire restriction emphasis.
		3. Messages should be informational in nature but directed to specifically identified problems.	3. Emphasis should be made at high use/ high risk areas.
Inspection and Law Enforcement	1. Done as part of the regular monitoring job.	1. Done as part of user contact programs.	1. Specific inspection contacts will be made in heavy use areas during the fire season.
	2. Flagrant violations will be processed as they are discovered.	2. Emphasis will be correction of violations.	2. Violations will be processed as discovered.
	3. Emphasis will be educational.	3. Flagrant violations will be processed as discovered.	3. Media program will emphasize violations or convictions.
Mass Media Programs (Radio/TV)	1. No specific programs.	1. Message will be directed to specific problem or groups.	1. Messages will be targeted to specific problems or groups.
	2. Any message will be general and incidental to principle messages being conveyed.	2. Messages will usually be combined with other subject matter.	2. Messages will be single purpose.

E. MANAGEMENT AREA PRESCRIPTIONS

Each acre of National Forest land within the Mt. Baker-Snoqualmie has been assigned to one of the following management areas. This section of Chapter 4 shows the individual management area prescriptions which apply to projects, activities, and uses on the Forest. The standards and guidelines for each management area must be used in conjunction with the Forest-wide Standards and Guidelines.

Refer to Table 4-20 for the acres allocated to each MA in this Forest Plan. The Alternative J (Preferred) maps accompanying this document show the on-the-ground location of all the management areas. A Forest Plan control map will be developed; it will be the authoritative reference for interpreting and implementing the spatially-related direction in this Forest Plan. A master copy of the Forest Plan Control map, updated to reflect any amendments or revisions, will be maintained in the Forest Supervisor's Office.

Table 4-20
Management Area Acreages

Management Area	J (Preferred)
Lands Suitable for Timber Production	346,411
1 Dispersed Recreation	
1A Primitive	45,278
1B Semi-Primitive Nonmotorized	225,104
1C Semi-Primitive Motorized	2,981
1D Roaded Natural Recreation	14,926
1E General Dispersed Recreation	0
1F 1926 Mt. Baker Recreation	0
Subtotal	288,289
2 Scenic Viewshed	
2A Foreground	23,406
2B Middleground	95,795
Subtotal	119,201
3 Developed Recreation	
3A Public Sector Sites	1,819
3B Potential Recreation Sites	0
3C Winter Sports Resorts	6,041
3D Private Sector Sites	558
Subtotal	8,418
4 Mt. Baker National Recreation Area	8,740
5 Potential Wild & Scenic River	20,865
6 Skagit Wild & Scenic River	17,037
7 Amer Indian Religious/Cultural Use 4/	0
8 Special Areas 5/	6,321
10 Wilderness	
10A Transition	15,078
10B Trailed	49,015
10C General Trailless	457,000
10D Dedicated Trailless	191,606
10E Special Area	9,017
Subtotal	721,716
11 Old Growth Habitat	54,191
12 Mature & Old Growth Habitat	19,282
13 Watershed, Wildlife and Fisheries Emphasis in Riparian Areas 6/	
13D Level III Anadromous, Potential Resident Fish Habitat Capability	47,048
14 Deer and Elk Winter Range	33,587
15 Mountain Goat Habitat	
15A Management Requirements	17,110
15B Habitat Improvement	0
Subtotal	17,110
16 Threatened & Endangered Species	
16A Northern Bald Eagle	2,808

Table 4-20
Management Area Acreages

Management Area	J (Preferred)
17 Timber Management Emphasis	166,611
18 Research Natural Areas 8/	5,233
19 Mtn Hemlock Zone	31,965
20 Cedar River Municipal Watershed	
20A Current Direction, Exchange NF Lands to City	0
20B Exchange NF Lands, City Maintains Old Growth	0
20C Retain NF Land, Maintain Old Growth Habitat	0
20D Negotiate new Cooperative Agreement	11,724
21 Green River Municipal Watershed	
21A Current Direction, Timber Harvest, Disp Rec. OK	24,935
21B Timber Harvest OK, Most Public Rec. Prohibited	0
22 Sultan River Municipal Water	
22A Closed Except Protect Watershed & Hydropower Production, Exchange NF Lands	0
22B Current Situation, Exchange NF Lands, Moderate Timber Harvest, Restricted Recreation	8,399
22C Retain NF Lands, Full Multiple Use	0
23 Other Municipal Watersheds	
23A Timber Harvest, Moderate Recreation	13,138
23B No Harvest, Limited Recreation	0
25 Special Uses - Utilities	
25A Utility Corridors 9/	[1500]
25B Electronic Sites	1,014
26 Administrative Sites	143
27 Alpine Lakes Mgt. Area 10/	95,305

1/ Total acres in each alt. vary due to rounding. MA 9 not used, MA 24 Min. Mgt. not assigned in any alternative.
2/ Applies only to Alt. A; includes mostly unroaded, but some roaded recreation, from exisitng Multiple Use Plans.
3/ Parcels of the 1926 area that remain outside of wilderness and the Mt. Baker NRA are included here.
4/ Acres are protected, at varying levels, in the alternatives, but not shown to protect confidential nature.
5/ Includes: Cultural-Historic, Geologic, Biologic, Botanic, and Scenic Special Areas.
6/ Many acres of riparian zone fall within other MA's and are protected through those management prescritptions.
7/ Management Areas 16B Grizzly Bear, 16C American Peregrin Falcon, and 16D Gray Wolf have no acres assigned at this time, because no specific habitat has been identified or evaluated.
8/ Acres of existing or proposed RNA located within wilderness are included in MA 10, not here.
9/ These acres overlap other MA's.
10/ Includes acres within the congressionally designated Alpine Lakes Management Unit that are not otherwise assigned to other, compatible management areas. (Compatible MA's include: 5, 11, 12, 14, 15, and 16.)

Management Area Prescriptions

Table of Contents

1 DISPERSED RECREATION

Goal: To provide for a spectrum of dispersed recreation opportunities in a predominately natural or naturally appearing environment through the management of user activities and natural resource settings.

Description of Lands Where Prescription Applicable This prescription is applied to selected acres throughout the forest. It does not occur in wilderness or existing developed recreation sites.

Desired Future condition: Varies by Intensity.

Intensities In Management Area 1:

1A Primitive
1B Semi-Primitive Nonmotorized
1C Semi-Primitive Motorized
1D Roaded Natural

INTENSITY 1A: PRIMITIVE

Desired Future condition: Unmodified natural environment has been maintained with a high probability of isolation. Evidence of human activities would be unnoticed by most users. Primitive recreation opportunities are available with a high degree of risk and challenge On-site controls, facilities, or modifications are unlikely and would be provided only for resource protection and users safety. Timber harvest is not appropriate and is not scheduled. Because of the distances involved, most use is overnight in character. concentration of users is very low, generally under 0.1 RVD's/acre/year. Roads will be generally three miles fton these zones and normally one would expect to hike one to three hours to access these areas.

Program Element	Standards and Guidelines
A. Recreation	
1. Trail Planning	
	a. Trails should be located to take advantage of viewing opportunities in high Visual Absorption capability terrain, and to enhance primitive opportunities.
	b. Trails will generally be constructed and managed to a standard of "more difficult" and most difficult."
2. Visual Quality	
	a. Visual Quality objective of preservation should be maintained, lower standards are acceptable in the event of unregulated harvest necessary for catastrophic events, Practices should be employed in a manner that best achieves the objectives of primitive intensity
3. American Indian Religious and a Cultural Use	a. Meet Forest-wide Standards and Guidelines.

4. Facility and Site Management	a. None provided, except at sites where needed to respond to primitive recreation need. Existing sites not needed, will be removed following cultural resource evaluation
	b. On-site signs will be permitted
5. Use Administration	
	a. Issue entry permits or group size limitations where necessary to meet goals for area management or resource protection.
	b. Dispersed campsites should not have user-built improvements such as. shelters, drainage controls, drift fences, etc
	c. Mange according to Primitive ROS goals and standards.
	d. Campfires may he limited to designated sites. or prohibited, as needed for resource protection
	e. Recreational stock should be held overnight outside of the foreground areas of lakes. streams, camp areas and trailsides.
	f. Dispersed camp areas located to take advantage of topographic and vegetative screening.
	g. Area is closed to motorized ORS.T use
	h. Use of power tools allowed.
	i. Multiple trails at focal points should be discouraged with management practices aimed at halting the spread of these trails. Generally trails will be constructed and maintained to standards of “most difficult.”
B. Wilderness	a. Not applicable.
C. Wildlife and Fish 1. Planning	a. Trails and camping areas should avoid known essential habitat components including escape and thermal cover, goat kidding areas, travel corridors. mineral licks and raptor neat sites where user activity may be expected to disturb or jeopardize these areas.
2. Non-structural Habitat Improvement	a. Fish stocking is allowed to improve or re-establish anadromous or resident species

		b. Vegetative manipulation to enhance wildlife habitat is allowed within the constraints of a Primitive setting.
	3. Structural Habitat Improvement	a. Habitat improvement projects are generally acceptable, but they shall be unnoticed and blend into the natural landscape.
D. Range		a. Meet Forest-wide Standards and Guidelines
E. Timber		
	1. Timber Management Planning	a No scheduled harvest. Harvest may take place in the preventing further losses or protecting other resources or adjacent lands, and not for recovery of merchantable timber, Preference given to those systems having the least effect on primitive values.
		b. Replant in native species.
F. Water, Soil, and Air		a. Mast Forest-wide Standards and Guidelines; where applicable use endemic or native species for erosion control.
G. Minerals and Geology		a. Meet Forest-wide Standards and Guidelines
H. Rural community and Human Resources		a. Volunteers and other human resource programs will be used to augment site and facility maintenance work where applicable.
J. Lands		
	1. Special Use Management	a. Do not locate utility corridors, dams and diversions in these areas.
	2. FERC License and Permits	a. Recommend against FERC license or permits
	3. Land Ownership Planning	b. Place all these lands in Group II - retain or acquire when possible
	4. Rights of Way Cost Share	a Do not share cost on roads accessing private inholdings
L. Facilities		
	1. Transportation System Planning Road	a. development is not permitted, except where access to manage catastrophic timber loss is not practicable by aerial means. In such cases roads will be temporary and returned to a near natural condition when harvest project is complete.
		b. Any existing roads are closed to motorized use end access, such primitive roads will be allowed to naturally revegetate.
P. Protection		
	1. Fire Management Planning	a. Forest-wide Fire Protection Group C applies
	2. Forest Pest Management	a. Meet Forest-wide Standards and Guidelines.

INTENSITY 1B: SEMI-PRIMITIVE NONMOTORIZED

Desired Future condition: Areas are characterized by a predominately natural or naturally appearing environment generally free from evidence of sights and sounds of human activities. Opportunity exists for isolation. Recreational experiences carry a

moderate degree of risk and challenge Concentration of users is low, generally under 0 6 RVD's/acre/yr. Timber harvest is not appropriate and is not scheduled. Roads will generally be a quarter mile to three miles from these areas.

Program Element	Standards and Guidelines
A Recreation	
1. Trail Planning	a. Trails located to take advantage of viewing opportunities located in high Visual Absorption capability terrain, and serve to disperse users.
	b Generally trails will be constructed and managed to the standard no higher than 'more difficult." If. however the demand exists for a particular recreation opportunity a higher standard trail may be constructed.
2. Visual Quality	a. Visual quality objective of retention should be maintained.
3. American Indian Religious and cultural Use	a. Meet Forest-wide Standards and Guidelines.
4. Facility and Site Management	a. Limited facilities allowed to achieve signing. sanitary, safety needs, resource protection, and recreation enhancement.
	b Facilities allowed for resource protection and enhancement, and for the purposes of health and safety. Should use rustic materials. maintaining a natural appearance
	c Signs may be provided at all major trail junctions and trailheads indicating routes. distances, and destinations. Additional signing may be provided for user safety and resource protection.
	d Experience level 2 campgrounds may be constructed for nonmotorized uses.
	e. Some interpretation through self-discovery or on-site interpretation
5. Use Administration	a. Group size restriction may be employed where needed for resource protection.
	b. Isaac entry permits if necessary to meet goals for area management or resource protection.
	c. Campsites are typically informal, fire rings and user built improvements are allowed.
	d. In overused areas, campsites may be designated and open fires restricted.

		e. Manage according to Semi-Primitive Nonmotorized SOS goals and standards.
		f. Recreational stock should be held overnight outside of the foreground areas of lakes, streams, camp areas, trailsides.
		g. Dispersed camp areas located to take advantage of topographic and vegetative screening.
		h. Area is closed to ORV use, snowmobile use is allowed, except where posted as closed.
		i. Use of power tools allowed
		j. User built trails are allowed, within the constraints of protecting resources from damage.
B. Wilderness		a. Not applicable.
C. Wildlife and Fish		
	1. Planning	a. Trails and camping areas should avoid known essential habitat components including escape and thermal cover, goat kidding areas, travel corridors, mineral licks and others where user activity may be expected to disturb or jeopardize these areas.
	2. Non-Structural Habitat Improvement	a. Fish stocking allowed to improve or or resident species.
		b Vegetative manipulation to enhance wildlife habitat is allowed within the constraints of a Semi-Primitive Nonmotorized setting
	3. Structural Habitat Improvement	a. Habitat improvement projects acceptable if they meet foreground retention visuals and other standards of the Semi-Primitive Nonmotorized ROS class
D. Range		a Nest Forest-wide Standards and Guidelines
E. Timber		
	1. Timber Management Planning	a. No scheduled harvest. Harvest may take place in the event of a catastrophic event such as fire, insects, disease, or blowdown. The intent of such harvest ia to prevent further losses or protect other resources or adjacent lands end not for recovery of merchantable timber. Preference given to those systems having the least effect on Semi—Primitive values.
		b Replant in native species.
F. Water. Soil, and Air		a. Meet Forest-wide Standards and Guidelines.
G. Minerals and Geology		a. Meet Forest-wide Standards and Guidelines.
H. Rural Community and Human Resources		a. Volunteers and other human resource programs will be used to augment site and facility maintenance work where applicable.
J. Lands		
	1. Special Use Management	a. Avoid locating utility corridors in these areas.

	b. Avoid locating special uses in this area which are incompatible with the management prescription and desired future condition
2. Land ownership Planning	a. Place all these lands in Group II - retain or acquire when possible.
3. Rights of Way Cost Share	a. Do not share cost on roads accessing private inholdings.
L. Facilities	
1. Transportation System Planning	a. Road development should not be permitted, except where access to managed catastrophic timber loss is not practicable by aerial means. In such cases roads will be temporary and returned to a near natural condition when harvest project is complete.
	b. Any existing roads are closed to motorized use and access, such primitive roads will be allowed to naturally revegetate, and return to a naturally appearing condition
P. Protection	
1. Fire Management Planning	a. Forest—wide Fire Protection Group c applies.
2. Forest Pest Management	a. Meet Forest—wide Standards and Guidelines

INTENSITY 1C SEMI—PRIMITIVE MOTORIZED

Desired Future Condition: This is an area where alterations to the natural landscape may be moderately dominant and may exist, but not draw the attention of motorized users within the area. offers the opportunity to experience a moderate degree of isolation from the sights and sounds of human activity, allows one to establish some sense of independence and closeness to nature. Develops a moderate feeling of self—reliance through the use of outdoor skills. Area is managed to minimize the presence of on—site controls and use restrictions. There will often be the evidence of other users, but the concentration of these users is low, generally under 3.5 RVD's/acre/year. Motorized use is allowed, but may be seasonal in nature in some areas. Timber harvest is not appropriate.

Program Element	Standards and Guidelines
A. Recreation	
1. Trail Planning	a. Trails located to take advantage of viewing opportunities, high Visual Absorption Capability (V.A.C.) terrain, travel loops and motorized recreation challenge. Generally trails will be designed and maintained to the standard of "more and most difficult."
2. Visual Quality	a. A range of Visual Quality Objective from retention to partial retention should be maintained.
3. American Indian Religious and Cultural Use	a. Meet Forest-wide Standards and Guidelines.
4. Facility and Site Management	a. Limit facilities to tables, tire placss. sanitary and safety needs; built in rustic materials (level 2 scale of development). b. Signs provided at all major trail junctions and trailheads. indicating routes, distances. and destinations. Additional signing may be provided for user safety end resource protection c. On-site interpretation may be present.
5. Use Administration	a. Issue entry permits or group size limitations if necessary to meet goals for area management end resource protection b. Recreational stock and ORV's should be held overnight outside of the foreground areas of lakes, streams, camp areas, trailsides c. Campsites are typically informal, user built improvements are allowed. d. In overused areas, campsites may be designated and open fires restricted. e. Manage according to Semi-Primitive Motorized ROS class. f. Dispersed camp areas are located to take advantage of topographic and vegetative screening.

		g. General areas is open to ORV use, although some closures may be used to respond to wildlife and/or resource management concerns.
	6. Use Administration	a. Motorized use should be routed sway from essential forage production and wildlife protection areas through trail relocation.
B. Wilderness		a. Not applicable.
C. Wildlife and Fish		
	1. Planning	a. Trails and camping areas shall avoid known critical habitat components including escape and thermal cover, goat kidding areas, travel corridors, mineral licks and others where user activity may be expected to disturb or jeopardize these areas.
		b. prevent wildlife harassment in calving. fawning, and nesting areas. Close roads and trails to motorized use from March 15 - July 15 (or as necessary) when identified disturbance occurs.
		c. prevent wildlife harassment in Goat Winter Range by seasonally closing roads and trails to motorized use from November 15 to May 15 (or as necessary).
	2. Non-Structural Habitat Improvement	a. Fish stocking is allowed to improve or re-establish anadromous or resident species.
		b. Vegetative manipulation to enhance wildlife habitat is allowed within the constraints of the Semi-Primitive motorized intensity
	3. Structural Habitat Improvement	a Habitat improvement projects should be designed to meet Visual Quality Objectives.
D. Range		a. Meet Forest-wide Standards and Guidelines
E. Timber		
	1. Silvicultural Examination	a. No scheduled harvest. Harvest may take place in the event of a catastrophic event such as fire, insects, disease, or blowdown. The intent of such harvest is to prevent further losses or protecting other resources or adjacent lands, and not for recovery of merchantable timber Preference given to those systems having the least effect on Semi-Primitive values.
		b. Replant in native species.
F. Water. Soil, and Air		a. Meet Forest-wide Standards and Guidelines.
G. Minerals and Geology		a. Meet Forest-wide Standards and Guidelines.
H. Rural Community and Human Resources		a. Volunteers and other human resource programs will be used to augment site and facility maintenance work where applicable.
J. Lands		
	1. Special Use Management	a. Avoid locating utility corridors in these areas.
		b. Avoid locating special uses in this area that are incompatible with the management prescription and desired future condition.

2. Land Ownership Planning	b. Place all these lands in Group II - retain or acquire when possible.
3. Rights of Way Cost Share	a. Do not share cost on roads accessing private inholdings.
L. Facilities	
1. Transportation System Planning	a Road development should not be permitted. except where access to managed catastrophic timber loss is not practical by aerial means. In such cases roads will be temporary and returned to a near natural condition when harvest project is complete.
P. Protection	
1 Fire Management Planning	a. Forest-wide Fire Protection Group C applies
2. Forest Pest Management	a. Meet Forest-wide Standards and Guidelines.

INTENSITY 1D ROADED NATURAL

Desired Future condition: Provides the users an equal opportunity to experience recreational contact with other user groups or isolation from the sights and sounds of human activity. Allows users to establish an interest in the natural environment and to develop and test outdoor skills associated with either motorized or non—motorized recreation use with little challenge or risk. The setting for this class of recreation is characterized by an environment where modifications of the natural landscape range from being easily noticed to obviously dominant to users. However, from sensitive travel routes and use areas, these alterations will appear subordinate to the surrounding areas Timber harvest is permitted

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Program Element	Standards and Guidelines
A. Recreation	
1. Recreation Planning	a Emphasis will be given to day use recreation and facilities.
2. Visual Quality	a. visual quality objectives in the area are partial retention along sensitive travel routes; elsewhere. may range from partial retention to modification
3. American Indian Religious and Cultural Use	a . Meet Forest-wide Standards and Guidelines.
4. Facility and Site Management	a. Development level 2 and 3 sites are permitted.
	b. Wayside exhibits for interpretation may be used
5. Use Administration	a. Manage according to Roaded Natural ROS standards.
	b. Campfires may be limited to designated sites.
	c. Recreational stock shall be held outside of the foreground areas of lakes, streams, camp areas end trail sides.
	d Closures may be used to respond to wildlife and/or resource management concerns.
	e. camping located to take advantage of topographic and vegetative screening.

6. Trail Planning

a. Trails located to take advantage of viewing opportunities, terrain, destination points. and challenge.

7. Use Administration

a Meet Forest-wide Standards and Guidelines

B Wilderness

a. Not applicable.

C. Wildlife end Fish

1. Planning

a. Trails and camping areas should avoid known essential habitat components including escape and thermal cover, goat kidding areas, travel corridors, mineral licks and others where user activity may be expected to disturb or jeopardize these areas.

b prevent wildlife harassment in calving. fawning, and nesting areas. Close roads and trails to motorized use from March 15 - July 15 (or as necessary) when identified disturbance occurs.

c Prevent wildlife harassment in Goat Winter Range by seasonally closing roads and trails to motorized use from November 1.5 to May 1.6 (or as necessary).

d. When inventoried deer and elk winter range occurs within this management area, the following standards will be incorporated

(1) Diversity and juxtaposition of habitat shall consist of forage, hiding/thermal cover end optimal cover (OC) See glossary for definition of habitat types

(2) Range of habitat types is as follows

Seral Stage	% of Range
1-20years	10-15% forage
21-90years	4O-45% Thermal/hiding cover
90+ years	37-45% optimal Cover

(3) As a general rule, maintain above range of habitat types for every 2.000 acres (approx) of contiguous winter range

(4) Methods such as sequential, adjacent harvest entries with small unit sizes to achieve larger OC area size requirements in the long tern could be used, and would meet scenic objectives as well

(5) Average open—road density per square mile for a contiguous piece of winter range shall be 2 miles/square mile,

2. Habitat Improvement

a. Improvement will be emphasized such as desirable forage species planting. fertilization, thinning, and slash disposal.

D. Range

a. Meet Forest-wide Standards and Guidelines

E. Timber

1. Timber Management Planning

a A full range of silviculture practices shell be allowed. USDA Forest Service. Agriculture Handbook No. 559

		should be used to design harvest units
		b The standards and guidelines for the management prescription. 17 shall apply to this management prescription
		c. Stands will be managed for a minimum 125 year rotation to meet visual objectives cited in
F.	Water. Soil, and Air	a. Meet Forest-wide Standards and Guidelines
G.	Minerals and Geology	a. Meet Forest-wide Standards and Guidelines.
H.	Rural Community and Human Resources	a. Volunteers and other human resource programs will be used to augment site and facility maintenance work where applicable
J.	Lands	
	1. Lend Ownership Planning	a. Place all these lands in Group III — Available for land exchange
L	Facilities	
	1. Transportation System Planning	a . Generally, easy access is provided to highway vehicles on single or double dirt or gravel lane roads built to accommodate dispersed recreationists. Roads may be built for the purpose of providing expanded recreational opportunities in this ROB class
	2. Developed Site Construction/ Reconstruction	a Moderate amount and complexity of facilities for comfort and convenience of users. May include trail shelters, boat ramps, sanitary facilities, picnic tables, cook fire enclosures Facilities should blend in with the natural landscape and character.
P.	Protection	
	1. Fire Management Planning	a Forest-wide Fire Protection Group C applies.
	2. Forest Pest Management	a Meet Forest-wide Standards and Guidelines.

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2 SCENIC VIEWSHED

Goal Provide a visually appealing landscape as viewed from major travel corridors end use areas

Description of Lands Where Prescription Applicable: This prescription is applied to selected, sensitive corridors and viewsheds throughout the Forest (see figure 4—la and 4—lb). Several of these because of their combined scenic, cultural, and recreational values have been designated as National Forest Scenic Byways

Desired Future Condition Common to all Intensities.

Scenic viewsheds accommodate a variety of activities which, to the casual observer, are either not evident or are visually subordinate to the natural landscape. Activities borrow from or repeat form, line, color, and texture elements which are frequently found in the natural landscape Vegetation is diverse and includes a wide variety of tree species and sizes, both living and dead

Intensities in this Management Prescription.

2A. Foreground
2B. Middleground

INTENSITY 2A FOREGROUND

Program Element	Standards and Guidelines
A. Recreation	
1. Recreation Planning	a. Developed sites may be allowed. Plan for roaded natural and rural ROS class standards.
	b. The applicable standards and guidelines for developed recreation are in Management Area 3A, program element A.
2. Visual Quality	a. Projects shall meet Visual Quality Objectives of Retention from primary road corridors and Partial Retention from secondary road corridors (figures 4-1a and 4-1b). Trails crossing 2A have a VQO of Retention.
3. American Indian Religious and Cultural Use	a. Meet Forest-wide Standards and Guidelines.
4. Facility and Site Management	a. All signs end facilities blend with surrounding landscape. On site interpretation may be present.
5. Use Administration	a. ORV use allowed in designated areas only.
6. Trails Construction, Reconstruction, Operation	a. Trails are located and maintained to blend with topography and surrounding landscape.
	b. Trails are located to take advantage of viewing opportunities
B. Wilderness	a. Not applicable.
C. Wildlife and Fish	a. Meet Forest—wide Standards and Guidelines.
	b. When inventoried deer and elk winter range occurs within this management area, the following standards will be incorporated.
1. Planning	(1) Diversity and juxtaposition of habitat shall consist of forage, hiding/thermal cover. and optimal cover (OC) See glossary for definition of habitat types
	(2) Range of habitat types is as follows:

Seral Stage	% of Range
1—20 years	10-15% forage
21—90 years	4O-45% thermal/hiding cover
91+ years	37-45% OC

(3) As a general rule, maintain above range of habitat types for every 2.000 acres (approx) of contiguous winter range.

(4) Methods such as sequential, adjacent harvest entries with smell unit sizes to achieve larger OC area size requirements in the long term could be used, and would meet scenic objectives as well.

(5) Average open-road density per square mile for a contiguous piece of winter range shall be 2 miles/square mile.

	2. Habitat Improvement	a. Improvement will be emphasized such as desirable forage species planting. fertilization, thinning, and slash disposal.
D. Range		a. Not applicable.
H. Timber		
	1. Timber Management Planning	a. A full range of silvicultural practices should be allowed. USDA Forest Service, Agriculture Handbook NO. 559 should be used to design harvest units.
		b. Stands will be managed on an extended rotation to meet visual objectives cited in A-2a.
	2. Timber Sale Preparation and Timber Sale Administration	a. At least ten percent of timber stands in foreground and areas shall contain large character trees (30 to 36" DBH) in sensitivity level 1 and 24'' to 30'' DBH in sensitivity level 2.
		b. Diversity in undergrowth should be retained by minimizing ground disturbance.
		c. Created openings shall no longer be considered openings in sensitivity level 1 areas when trees reach 20 feet in height.
		d. Created openings shall no longer be considered openings in sensitivity level 2 areas when trees reach 15 feet in height.
		e. Areas of ground disturbance should be rehabilitated to natural appearance. Exposed areas should be revegetated within one year of disturbance.
		f. Diversity of species and age classes should be maintained through harvest scheduling.
		q. Landing should be located outside of seen areas or rehabilitated within one year of operation if they must be located in seen areas.
		h. Logging systems should be used that sect the minimum objectives of timber harvest and cause the least ground disturbance.
		i. Stumps should be cut to a height necessary to meet Visual Quality Objectives.
	3. Genetic Forest Tree Improvement	a. Genetic tree material (cones, scions, etc may be collected and marked.
F. Water, Soil, and Air		a. Meet Forest-wide Standards and Guidelines.
G. Minerals and Geology		a. Meet Forest-wide Standards and Guidelines.
H. Rural Community and Human Resources		a. Meet Forest-wide Standards and Guidelines.
J. Lands		
	1. Special Use Management	a. Transmission towers should be designed to blend with the surrounding landscape.
	2. Right-of-Way Grants	a. Right-of-Way corridors should be designed and located to blend with the surrounding landscape.

	3. Land Ownership Planning	a. Group III - available for land exchange.
L. Facilities		
	1. Transportation System Planning	a. Roads in the seen or potentially seen area should blend with natural form, line, color. and texture.
	2. Road Construction and Reconstruction	a. Cut and fill slopes should be revegetated within one year of construction.
		b. Rockpits and stockpile sites should be located outside seem areas whenever possible and rehabilitated when located within seen areas.
	3. FA&O Construction/ Reconstruction and Facility Maintenance	a. Buildings and other facilities should be designed and located to blend with the surrounding landscape.
P. Protection		
	1. Fire Management Planning	a. Forest-wide Fire Protection Group A applies
	2. Forest Pest Management	a. Meet Forest-wide Standards and Guidelines.

INTENSITY 2B MIDDLEGROUND

Program Element	Standards and Guidelines
A. Recreation	
1. Recreation Planning	a. Developed sites may be allowed. Plan for semi-primitive motorized. roaded natural and roaded modified ROS class standards.
	b. The applicable standards and guidelines for Developed Recreation are found in Management Area 3A. program element A (recreation).
2. Visual Quality	a. Projects shall meet Visual Quality Objectives of partial Retention in the middleground of primary road corridors (see figure 4-1a and 4-1b. Foregrounds of secondary roads or of trails which overlap the middleground seen area also have a VQO of Partial Retention.
3. American Indian Religious and Cultural Use	a. Meet Forest-wide Standards and Guidelines.
4. Facility and Site Management	a. All signs and facilities blend with surrounding landscape. On site interpretation may be present.
5. Use Administration	a. ORV use allowed in designated areas only.
6. Trails Construction. Reconstruction, Operation	a. Trails are located and maintained to blend with topography and surrounding landscape.
	b. Trails are located to take advantage of viewing opportunities.
B. Wilderness	a. Not applicable.
C. Wildlife and Fish	
1. Planning	a. Meet Forest—wide Standards and Guidelines.

b. When inventoried deer and elk winter range occurs within this management area, the following standards will be incorporated:

(1) Diversity and juxtaposition of habitat shall consist of forage, hiding/thermal cover, and optimal cover (OC) See glossary for definition of habitat types.

(2) Range of habitat types is as follows:

Seral Stage	% of Range
1—20 years	10—15% forage
21—90 years	40—45% thermal/hiding cover
90+ years	37—45% OC

(3) As a general rule, maintain above range of habitat types for every 2.000 acres (approx.) of contiguous winter range.

(4) Methods such as sequential, adjacent harvest entries with small unit sizes to achieve larger OC area size requirements in the long term could be used, and would meet scenic objectives as well.

(5) Average open—road density per square mile for a contiguous piece of winter range shall be 2 miles/square mile.

2. Habitat Improvement

a. Improvement will be emphasized such as desirable forage species planting. fertilization, thinning, and slash disposal.

D. Range

a. Not applicable.

E. Timber

1 Timber Management Planning

a. a full range of silvicultural practice. should be allowed. USDA Forest Service: Agriculture Handbook NO. 559 should be used to design harvest units.

b. The Standards and Guidelines for the timber production, Management Prescription 17 shall apply to this Management Prescription.

c. Visual quality objective of partial retention should be maintained.

2. Timber Sale Preparation and Timber Harvest Administration

a. Areas of ground disturbance should be rehabilitated to natural appearance. Exposed trees should be revegetatad within one year of disturbance.

b. Diversity of species and age classes should be maintained through harvest scheduling.

c. Landing should be located outside of seen areas or rehabilitated within one year of operation if they must be located in seen areas.

d. Logging systems should be used that meet the minimum objectives of timber harvest and cause the least ground disturbance.

3. Genetic Forest Tree Improvement		a. Genetic tree material (cones, scions. etc may be collected and marked
F. Water. Soil. and Air		a. Meet Forest-wide Standards and Guidelines.
G. Minerals and Geology		a. Meet Forest-wide Standards and Guidelines.
H. Rural community and Human Resources		a. Meet Forest-wide Standards and Guidelines.
J. Lands		
1. Special Use Management		a. Transmission towers should be designed to blend with the surrounding landscape.
2. Right-of-Way Grants		a. Right-of-Way corridors should be designed and located to blend with the surrounding landscape.
3. Land Ownership Planning		a. Group III - available for land exchange.
L. Facilities		
1. Transportation System Planning		a. Roads in the seen or potentially seem area should blend with natural form, line, color, and texture
2. Road construction and Reconstruction		a. Cut and fill slopes should be revegetated within one year of construction.
		b Rockpits and stockpile sites should be located outside seen areas whenever possible and rehabilitated when located within seem areas.
3. FA&O Construction/ Reconstruction and Facility Maintenance		a Buildings and other facilities should be designed and located to blend with the surrounding landscape.
P. Protection		
1. Fire Management Planning		a. Forest-wide Fire Protection Group A applies.
2. Forest Pest Management		a. Meet Forest-wide Standards and Guidelines.

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3 DEVELOPED RECREATION

Goal Provide a wide variety of year-round recreation experiences and facilities at developed sites.

Description of Lands Where Prescription Applicable: Developed recreation sites are usually located close to water bodies, or other areas of scenic or special interest. Developed recreation sites include existing and potential campgrounds, major trailheads. boating and swimming sites, picnic areas, alpine ski areas, and associated facilities, organization camps, recreation residences, and others Facilities will be provided at mostly recreation development scale 2 (semi-primitive) with little site modification, to scale 4 (rural) with the site heavily modified. The areas allocated to developed recreation include the specific site on which existing or potential development takes place and a surrounding visual and noise screen Soils and vegetation should be able to absorb heavy use. Except for winter recreation areas, developed recreation sites are usually located on land with slopes of 10 percent or less.

Desired Future Condition Common to all Intensities.

Developed recreation sites nay appear mostly natural to rural in setting. Physical facilities may be evident, design and construction will repeat the color, shapes, and lines of the surrounding environment. site controls and user interaction will vary with the setting. There is no scheduled timber harvest and any vegetative management is done for the purposes of maintaining a safe, functional, and attractive site, openings exist to accommodate facilities and provide scenic views. Vegetation will vary widely in type, size, and age. Access is by road.

Intensities in this Management Prescription

3A Public Sector Developed Sites
3C Winter Sports Resorts

3D Private Sector Sites

This intensity is applied to a full range of public developed and managed recreation sites including campgrounds. trailheads, boating and swimming sites, picnic areas and interpretation sites. Facilities shall be provided at the full range of development scale including fee sites. These existing developed sites should be maintained long—term as developed sites, but will be closed periodically due to decrease in program capability.

INTENSITY 3A PUBLIC SECTOR DEVELOPED SITES

Program Element	Standards and Guidelines
A. Recreation 1. Recreation Facilities Planning	a. Constructed structures should be architecturally compatible with the established landscape. b. Sites may be modified to accommodate recreational facilities and uses. c. Buildings should present naturally harmonious colors d. Sites will be developed that are appropriate to the forest environment. and will be maintained to provide only facilities for forest-type recreation such as camping, picnicking, hiking, canoeing. etc. e. Where the need exists, facilities in existing developed sites should be modified to make them usable by the handicapped Future developments will be planned and designed to make facilities accessible to the handicapped. f. The developed site usually encompasses an area larger than just the ground on which facilities are located. These peripheral areas should be managed as a roaded natural setting in which trails may be developed to provide dispersed recreation opportunities. These areas should also provide a visual retention screen of at least 300-500 feet between the developed site and other resource development areas. g. Sites shall be designed to ensure that the People At one Time (PACT) capacity of the site is in proper relationship to the desired ROS class and the ability of the site to withstand use. h. Overcrowding and loss of privacy will be prevented by strategically locating improvements, limiting their number, or designing facilities so as to limit the number of persons who can physically use or occupy them at one time. i. consider potential to incorporate cultural resource protection and interpretation in facility development plans.
2. Visual Quality	a. A Visual Quality Objective (VQO) of retention is prescribed for 1) all fee campgrounds and 2) day use

		sites in primary viewsheds. Other developed sites have a VQO of partial retention.
		b. A visual analysis should be completed in order to blend activities with the naturally established landscape
		c Rehabilitation measures should be applied to the landscape where needed to improve the visual setting.
3.	American Indian Religious and Cultural Use	a. Meet Forest-wide Standards and Guidelines.
4.	Facility and Site Construction and Reconstruction	a. A comprehensive and detailed site plan shall be developed prior to site construction or expansion.
		b. Site plans should show the specific location and design of all facilities and will provide for proper utilization of the site, control of traffic, public safety, sanitation, site protection, grading, landscape planting, and use distribution
		c Site designs should be based upon the ROS class and development scale concept.
		d The site shall be constructed or expanded to conform with an approved site plan
		e. Soil compaction should not exceed established limits except as necessary to accommodate development.
		f. Priority for site development will generally follow
		(i) Expand existing high-use fee sites.
		(ii) Convert non-fee to fee sites.
		(iii) Develop new sites to fill a recognized need.
5.	Recreation Facilities and Site Management	a Occupancy and use of recreation sites shall be regulated to the extent necessary to protect the resources and to ensure safe, enjoyable recreation experiences.
		b. Utilize regulations contained in 36 CFR 261 (Prohibitions) as necessary to ensure full public enjoyment of recreation sites.
		c. Off-road vehicles use should be limited to ingress and egress.
		d. Information and other on-site interpretation should be designed and used to the extent necessary to inform visitors of current conditions and regulations.
		e. An operation and maintenance plan shall be prepared and updated annually. Ensure that personnel who perform operation and maintenance (O&M) functions are familiar with O&M plans. (See most current USDA Handbook “cleaning Recreation Sites.”)
		f. A vegetative management prescription and plan of management should be prepared and implemented for

		each site or group of sites. prior to vegetative manipulation.
		g Each site should be analyzed periodically to determine whether its intended function is being served and if it requires alteration. replacement, closure. or elimination.
		h. Provide periodic patrols and site supervision utilizing volunteer hosts where appropriate.
		i. collect fees for those sites that neat Lend and Water Conservation Fund Act fee site designation criteria.
		j. Cleaning and policing should be performed regularly to ensure that sites are clean and sanitary, free of litter, and nest in appearance as described in the moat current USDA Handbook “Cleaning Recreation Sites.”
		k. Each site shall be inspected annually and all known safety hazards must be eliminated to the extent practical
		1. Potable water sources shall be operated and maintained in accord with FSM 7420. Federal, and State regulations.
		m. Vaults, septic tanks, and wastewater systems shall be inspected at regular intervals to ensure appropriate operation.
		n. Garbage disposal should be accomplished at intervals sufficient to minimize odors. prevent pollution of water supplies, and avoid attracting disease spreading insects and rodents
		o. Priority for work on developed sites is: (i) Work needed to ensure public health and safety (ii) Protection of the site’s physical resources. (iii) Care and policing, maintenance of existing improvements, supervision of occupancy and use, and interpretive services. (iv) Expansion of existing developments or construction of new sites, as needed.
		p. soil compaction should not exceed established limits except as necessary to accommodate development of sites.
	6. Trail Planning	a. Trails should be located to take advantage of viewing opportunities.
	7. Trail Reconstruction and Construction	a. Trails will be located to minimize resource impacts.
	8 Trail System Maintenance and Operation	a. Maintenance of trails within the developed site should be at a priority 3 level. providing resource protection, investment preservation, and visitor convenience.
B. Wilderness		a Not applicable.

C. Wildlife and Fish

1. Planning
   a Improvement of wildlife and fisheries habitat is permitted.

2. Habitat Improvement
   a Improvements are appropriate as long as visitor conflict is minimized.
   b. Structures should blend in with the naturally established landscape.
   c. Seasonal visitor use and wildlife use should be coordinated to minimize conflicts.
   d. Watchable wildlife projects are encouraged.

D. Range
   a Not applicable

E. Timber

1. Timber Management Planning
   a. Timber shall be managed on a non-scheduled basis, to meet recreation objectives, and to reduce the risk of public injury from hazardous trees.
   b. Improvement cutting shall be in accordance with the vegetation management prescription for the cite.
   c. Logging practices shall be selected that provide the least impact to the cite.
   d. Any logging shall be scheduled for off-season periods or while in a closed condition.

2. Silvicultural Examination and Prescription
   a. This prescription should
      (1) Create and/or maintain a regenerating natural environment.
      (ii) Create am environment that is, in visual aspects, pleasing and which resembles a natural setting.
      (iii) Provide herbs, grasses, and other ground—cover plants as components of the site.
      (iv) Create a more durable area, less prone to damage by human or pest impact.
      (v) Create diversity of tree size, age, and species, ultimately reducing the need to remove hazard trees by emergency treatment, short of a catastrophe
      (vi) Develop healthy soil conditions conducive to plant growth
      (vii) Create or perpetuate plant screening between occupancy units as appropriate to the planned experience level.
      (viii) Provide shade, wind protection, and sunshine diversity as appropriate to the climate.

3. Reforestation - Site Preparation for Planting and Seeding
   a. Unwanted vegetation, slash, stumps or roots should be removed, as well as having the ground surface shaped

		before planting or seeding to retain the determined vegetation conditions for the site as outlined in the vegetation management prescription.
P. Water, Soil, and Air		
	1. Planning	a Meet Forest-wide Standards and Guidelines.
	2. Improvements	a. Improvements are appropriate as long as visitor conflict is minimized.
		b. Improvements or rehabilitation should blend in with the naturally established landscape.
G. Minerals and Geology		a. Identify and determine validity of existing claims prior to development of a new site.
		b Removal of common variety minerals should not be permitted.
		c. Require a no surface occupancy stipulation for mineral leases.
		d. Sites not previously withdrawn shall be studied to determine where a withdrawal from mineral entry is appropriate Where appropriate, withdrawal action will be initiated.
		e. No on-site occupancy.
		f. Lease application recommendations will include stipulations to protect existing and/or future uses.
H. Rural Community and Human Resources		a. Human Resource and Volunteer Programs will be aggressively used to supplement the recreation program.
		b. Campground Hosts, preseason cleanup days. and adopted campgrounds are methods to be used to supplement services at developed sites.
J. Lands		
	1. Special Use Management	a. Developed sites are not available for other non-recreation uses provided by special use permits, if such uses are determined to conflict with the intended use of the developed site.
	2. Right-of-Way Grants	a. Provide appropriate access to inholders under the existing guidelines
		b. Strive to minimize the impact on the character of the site.
	3. FERC License and Permits	a. Recommend only compatible uses which do not impair recreational use of the area.
	4. Withdrawals, Modifications and Revocations	a. Use withdrawals where necessary to protect on site values.
	5. Property Boundary Location and Corner Maintenance	a. Aggressively survey, mark, and post National Forest property lines and maintain to a high level.
	6. Land Ownership Planning	a. Group II Generally retain or acquire, but the NHPA analysis may allow disposal (Group III).

L. Facilities		
	1. Road Construction and Reconstruction	a. Roads should be provided that are compatible with development scale.
		b. Roads and other facilities inconsistent with developed recreation should be located away from the primary use area, closed or removed.
		c. Design roads with proper width and surfacing for experiences desired. Access roads should be managed to permit passenger car traffic.
	2. Road Operation	a. Roads should be managed to proper experience level desired for safety, resource protection. and convenience.
P. Protection		
	1. Fire Management Planning	a. Forest-wide Fire Protection Group A applies.
	2. Law Enforcement	a. It is preferable to obtain compliance with rules and regulations through closely supervised use as opposed to heavy law enforcement action.
		b. Law enforcement shall stress education and being good hosts.
		c. Agreements shall be made wherever possible with counties to provide cooperative law enforcement support.
	3. Forest Pest Management	a Only biological, chemical, or silvicultural methods consistent with the management goals for the area will be used for pest management.

INTENSITY 3C: WINTER SPORTS RESORTS

Alpine skiing and related activities such as Nordic skiing, snow play, tobogganing. horseback riding, tennis, and other winter summer activities at resorts established for those purposes These areas will be managed to provide, through private sector concession operations, a diversity of winter and summer recreation activities that emphasize the Forest Setting.

Program Element		Standards and Guidelines
A. Recreation		
	1. Visual Quality	a. Meet Visual Quality Objectives of foreground retention. Middle ground partial retention for the recreation setting. Development in the base area will be designed to remain subordinate to the landscape. This may require special measures to blend ski runs, ski lifts, and buildings into the natural environment.
	2. American Indian Religious and Cultural Use	a. Meet Forest-wide standards and Guidelines.
	3. Use Administration	a. Administration will be on a monitoring basis. Improvement projects (buildings, chairlifts)may be administered at the expense of the proponent.
B. Wilderness		a. During summer activities, winter sports resorts will be discouraged from significantly impacting wilderness

		resources.
C.	Wildlife and Fish	a. Enhancement of habitat may be permitted provided that recreation use is not impaired. b. Recreation and wildlife use shall be coordinated to minimize conflict.
D.	Range	a. Not applicable.
E.	Timber 1. Timber Management Planning	a. No scheduled harvest Harvesting allowed to maintain an attractive, safe setting or to clear new ski runs.
F.	Water, Soil, and Air	a. Meet Forest-wide Standards and Guidelines. Give extra attention to erosion prevention and control on areas cleared for ski runs.
G.	Minerals and Geology	a. Sites not previously withdrawn shall be studied to determine whether a withdrawal from mineral entry is appropriate. Where appropriate, withdrawal action will be initiated.
H.	Rural Community and Human Resources	a. Meet Forest-wide Standards and Guidelines.
J.	Lands 1. Special Uses Management	a. Do not issue permits for activities which are not compatible with recreation use.
	2. Land Ownership Planning	a. Group III -Acquire, retain. or dispose
L.	Facilities 1 Transportation System Planning	a. Roads and trails shall be planned and developed according to an approved area site development plan. Other objectives may be met if recreation use is not impaired.
P.	Protection 1. Fire Management Planning	a. Forest-wide Fire Protection Group A applies.
	2. Forest Pest Management	a . Meet Forest-wide Standards and Guidelines.

INTENSITY 3D: PRIVATE SECTOR SITES

Organization Camps, Ski Clubs, Concession sites, and Recreation Residences are facilities operated by the private sector on National Forest land under a Special Use Permit Authorization

a. Organization Camp Sites are designated for organized group recreation use. These privately operated facilities provide lodging, meals social and educational opportunities of recreation in a forest environment.

b. ski clubs are facilities or structures authorized to occupy National Forest land to serve groups that have organized as a registered club and are available to the public only through club membership or as invited guests

c. A concession is a commercial public service enterprise such as a ski or lake resort, campground, or groomed cross—country ski trail, operating on National Forest land under permit for the purpose of providing goods end services to the general public

d. Recreation Residence is a privately built and owned structure, authorized on National Forest land under a term

special Use Authorization

Program Element	Standards and Guidelines
A. Recreation	
1. Planning, Facility and Site Management	a. Plan new areas only for Organization Camps or Concessions end then, only where the public need can be clearly demonstrated 3~dminister existing areas to provide suitable, cafe and attractive sites under Special Use Authorization Administer permits to meet National Forest recreation direction, and Forest-wide Standards and Guidelines.
2. Visual Quality	a. Visual Quality Objective should be retention for the recreation setting. Development of facilities will modify the site but will be designed to be subordinate to the natural landscape
3. American Indian Religious and a Cultural Use	a. Meet Forest-wide Standards and Guidelines.
4. Use Administration	a. Organization Camp Sites. Manage for Organization site only when private land is not available, and land is not needed for higher use, and a public need is clearly demonstrated
	b. Ski Clubs Do future use determinations on all permits. Where it cannot be demonstrated that the club is the best use of the forest land it occupies, proceed with termination of the permit or conversion to a use that better serves the public or forest resources
	c. Concession Sites Management objective is to provide a suitable site for commercial development when determination is made by the Forest Service that commercial services are needed for public use and convenience. Encourage private sector to provide needed services under Special Use Authorization. Re-evaluate need for Concession operation each time the term permit comes up for renewal.
	d. Recreation Residence. Manage in tracts and in time reduce the number of isolated occupancies Do not create any additional tracts
B. Wilderness	a. Not applicable.
C. Wildlife and Fish	a. Improvement of habitat may be permitted provided it is compatible with the recreation use permit.
D. Range	a. Not applicable
E. Timber	
1. Timber Management Planning	a. Timber shall be managed on a non-scheduled basis to meet recreation objectives and to reduce the risk of public injury. Vegetative management prescriptions

	should be prepared to maintain desired vegetation conditions for each site.
F. Water, Soil. and Air	a. Meet Forest-wide Standards and Guidelines.
G. Mineral and Geology	a. Removal of common variety minerals should not be permitted. b. Recommend a no surface occupancy stipulation for mineral leases c Sites not previously withdrawn shall be studied to determine whether a withdrawal from mineral entry is appropriate. Where appropriate, withdrawal action will be initiated. d. Applications will include stipulations to protect existing and/or future uses.
H. Rural Community and Human Resources	a. Meet Forest-wide Standards and Guidelines.
3. Lands	
1. Special Uses Management	a. Do not issue permits for *activities* which are not compatible with recreation use.
2. Land Ownership planning	a. Group III - Retain, acquire, or dispose.
L. Facilities	
1. Transportation System Planning	a. Roads sad trails shall be planned and developed according to an approved area site development plan. other objectives may be met if recreation use is not impaired.
P. Protection	
1. Fire Management Planning	a. Forest-wide Fire Protection Group A applies
2. Forest Pest Management	a. Meet Forest-wide Standards and Guidelines

4 MT. BAKER NATIONAL RECREATION AREA

Goal: Provide for: Public recreation, including but not limited to snowmobile use; the conservation of scenic, natural, historic. and other values contributing to public enjoyment; and manage, dispose of, and utilize ether natural resources which are compatible with and which do not significantly impair the purposes for which the area is established.

Description of Lands Where Prescription Applicable: A 8,600 acre parcel of land on the south side of Mt. Baker established by Congress in the 1984 Washington Wilderness Act. (Pt 98-339. 98 STAT. 299)

Desired Future Condition:

A natural or natural appearing environment has been maintained A variety of recreation opportunities are available in a primitive, semi-primitive, nonmotorized, semi-primitive motorized or roaded natural setting. On site controls, facilities or modifications exist as appropriate to each ROS class. Timber harvest or other resource utilization is compatible at levels which do not dominate the landscape or significantly impair the purposes of the area as described by Congress.

Intensities in this Management Prescription: None

Program Element	Standards and Guidelines
A. Recreation 1. Planning and Use Administration	a. Summer Use. Planned summer recreation facilities shall support nonmotorized use of NRA, such as heavy public use of the climbing route up Mt. Baker and of the crevasse fields on Easton Glacier for mountaineering training. Visual Quality objective should be partial retention when more than 1/4 mile from existing roads and trails. and retention within 1/4 mile. Planned recreation use should emphasize the high elevation dispersed type opportunities available on the side of Mt. Baker. Planned recreation improvements such as trailhead & interpretive facilities should support this use. These may include hardened sites and toilet facilities to prevent resource damage. Use of vehicles off the road is prohibited Monitor area to detect resource damage caused by human impact Set standards and institute management controls if damage exceeds standards b. Winter Use. Snowmobile use will be permitted within the National Recreation Area whenever the snow depth is 24 inches or deeper at the Schriber's Meadow area. Provide for snowmobile use of road to Schriber's Meadow (#13) and into upper Rocky Creek and upper Sulphur Creek, the upper Railroad Grade, Metcalfe Moraine, and lower Easton Glacier Work with Washington State Sno-Park program and user groups to manage winter use of this area.

	2. Visual Quality	a. From recreation roads and trails, a Visual Quality Objective of retention should be maintained in the foreground, and partial retention in the middleground.
	3. American Indian Religious and Cultural Use	a. Meet Forest-wide Standards and Guidelines.
	4. Trail System	a. During the summer, motorized use is prohibited. Provide loop trails out of trailhead for one and two day trips into alpine areas as shown on the trail plan. permit horse use on the western edge of the NRA.
B.	Wilderness	a. Not applicable.
C.	Wildlife and fish	a. Habitat improvement projects are acceptable provided they meet the visual quality objective of retention.
D.	Range	a. Not applicable.
H.	Timber	
	1. Timber Management Planning	a. Scheduled harvest at Timber Intensities A ,C, D
		b. Permit limited regeneration and sanitation salvage cutting to maintain healthy, and attractive forest.
		c. Logging to be permitted during periods of low public use.
		d. Give special attention to the preservation of the unique stand of subalpine fir above road #12.
F.	Water, Soil, & Air	a. Meet Forest-wide Standards and Guidelines.
G.	Minerals & Geology	a. For locatable minerals follow 38 CFR 228 and Forest-wide Standards and Guidelines.
		b DO not issue any “common variety” mineral materials permits.
		c. NRA is withdrawn from geothermal entry by law (P1 91-581: Sec. 15(c)).
		d. Do not allow winter operations which would significantly interfere with recreation use.
H.	Rural Community and Human Resources	a. Meet Forest-wide Standards and Guidelines.
L.	Lands	
	1. Special Uses Management	a. Issue only permits which contribute toward goal of NRA Grant permits as required in 1984 establishment act for studies of Mt Baker.
		b. Do not issue permits for projects which will significantly interfere with winter recreation use
	2. FERC License & Permits	a Recommend only when VQO of Retention can be met in the foreground Applies to all facilities including access roads and power transmission.
	3. Land Ownership Planning	a. Group II, retain or acquire.

L. Facilities

1. Transportation System Planning

a. No new permanent roads permitted for timber management activities.

b. construct trailhead facilities as needed to meet goals of NRA.

c. Develop roadhead facilities to enhance snowmobile use. If roads are to be plowed in winter require alternative roadhead facilities.

d. consider alternate snowmobile and X-C skier access to Schriber's Meadow and to the alpine areas rather than the existing road. Attempt to separate snowmobile and X-c ski traffic where possible.

P. Protection

1. Fire Management Planning

a. Forest-wide Fire protection Group B applies.

2. Forest Pest Management

a. Only biological, chemical. or silvicultural methods consistent with the management goals for the area will be used for peat management.

5 RECOMMENDED WILD AND SCENIC RIVERS

Goal Protect from degradation the outstanding remarkable values and wild, scenic, end recreation characteristics of recommended rivers and their environment, pending a decision on inclusion into the National Wild and Scenic River System.

Description of Lands Where Prescription Applicable: This prescription is generally applied to National Forest lands 1/4 mile either side of the main channel of each river that has been recommended for inclusion into the system; however, boundaries may include additional adjacent areas needed to protect the resources or facilitate management of the river corridor. The Forest Service has no authority for management or river protection outside National Forest lands until the river has been designated by Congress.

Desired Future Condition: Varies by Intensity.

Intensities in this Management Prescription:

5A. Recommended Recreation River

5B. Recommended Scenic River

5C. Recommended Wild River

INTENSITY 5A: RECOMMENDED RECREATION RIVERS

Desired Future Condition Evidence of a full range of management activities may exist. including existence of low dams, diversions, residential development, and forestry uses (past and present timber harvest). The rivers readily accessible by railroad, and bridge crossing. Streamside bank is generally natural condition. Water quality is such that waters are fishable and swimmable, or a water improvement plan exists or is under development in compliance with Federal and State law.

Program Element	Standards and Guidelines
A. Recreation	
1. Recreation Planning	a Proposed recreational activities shall be compatible with river values. Development Scale should not exceed Level 4. Attempt to locate major facilities outside of riverine area.
	b The applicable Standards and Guidelines for Developed Recreation are in Management Prescription 3A, program element A.
	c. Trails may be constructed
	d. Recreation special use may be permitted for the purpose of providing river-oriented recreation.
2. Visual Quality	a See Forest-wide Standards and Guidelines for Visual Resource Management.
3. Use Administration	a Manage according to ROS class standards of surrounding area, controls on motorized use will be similar to those on surrounding lands.
B. Wilderness	a Not applicable.
C. Wildlife and Fish	
1. Planning	a When inventoried deer and elk winter range occurs within this management area, the following standards will be incorporated.

(1) Diversity and juxtaposition of habitat shall consist of forage, hiding/thermal cover. and optimal cover (CC). See glossary for definition of habitat types

(2) Range of habitat types is as follows

Seral Stage	% of Range
1-20 years	10-15% forage
21-90 years	40-45% thermal/hiding cover
90+ years	37-45% Optimal Cover

(3) As a general rule, maintain above range of habitat types for every 2.000 acres (approx of contiguous winter range

(4) Methods such as sequential, adjacent harvest entries with small unit size requirements in the long term could be used. and would meet scenic objectives as well.

(5) Average open-road density per square mile for a contiguous piece of winter range shall be 2 miles/square mile

2. Habitat Improvement

a. Improvement will be emphasized such as desirable forage species planting. fertilization, thinning, and slash disposal.

D. Range

a. Not applicable.

E. Timber

1. Timber Management Planning

a. The Standards and Guidelines for Management Prescription 17, program element E, in the Forest Plan shall apply to this Management Prescription.

F. Water, Soil, Air

a. Meet Forest-wide Standards and Guidelines.

G. Minerals and Geology

a. Operation plans will include provisions to maintain streamside banks in a natural condition.

b. common variety mineral should not be removed.

H. Rural Community and Human Resources

a. Meet Forest-wide Standards and Guidelines.

L. Lands

1. Special Use Management

a. Applications for new permits will be reviewed to assure no degradation of river character or values, and for compliance with ROS classification.

2. FERC License and Permits

a. FHRC application proposals shall not be supported if degradation to values and characteristics necessary for classification is likely to occur

3. Land Ownership Planning

a. Group II - Retain national forest land and acquire other ownership as opportunity or need occurs

L. Facilities

a. Meet Forest-wide Standards and Guidelines.

P Protection

1. Fire Management Planning

a. Forest-wide Fire protection Group D applies.

2. Forest Pest Management

a. Meet Forest—wide Standards and Guidelines.

INTENSITY 5B: RECOMMENDED SCENIC RIVERS

Desired Future condition: Rivers are free flowing. No substantial evidence of human activity. A few small community buildings or structures may be present and visible from the river. Evidence of timber harvest is not noticeable from this river, and lands appear natural when viewed from riverbanks The river is accessible by roads which mar occasionally bridge the river area Short stretches of conspicuous or longer stretches of inconspicuous and well screened roads or railroads paralleling the river area may be permitted Water quality is such that waters are fishable and swimmable, or a water improvement plan exists or is under development in compliance with Federal and State laws.

Program Element	Standards and Guidelines
A. Recreation	
1. Recreation Planning	
	a. Proposed recreational activities shall be in keeping with river values. Development Scale should not exceed Level 3. Recreational sites and facilities to be located, designed and constructed to be unobtrusive from river and riverbank.
	b. The applicable Standards and Guidelines for Developed Recreation are in Management Prescription 3, Intensity A, program element A.
	c. Trails may be constructed, but located and constructed to be generally unobtrusive from river end riverbank.
	d. Recreation special use nay be permitted for the purpose of providing river-oriented recreation.
2. Visual Quality	a. See Forest-wide Standard and Guidelines for Visual Resource Management.
3. American Indian Religious and Cultural use	a. Meet Forest-wide Standards and Guidelines.
B. Wilderness	a. Not applicable
C. Wildlife and Fish	
1. Planning	a. When inventoried deer and elk winter range occurs within this management area, the following standards will be incorporated.
	(1) Diversity and juxtaposition of habitat shall consist of forage, hiding/thermal cover and optimal cover (CC). See glossary for definition of habitat types.
	(2) Range of habitat types is as follows:

% of Range	Seral Stage
1-20years	8-12% forage
21-90 years	40-45% thermal/hiding cover
90+ years	37—45% Optimal Cover

		(3) As a general rule, maintain above range of habitat types for every 2.000 acres (approx.) of contiguous winter range. (4) Methods such as sequential, adjacent harvest entries with small unit sizes to achieve larger OC area size requirements in the long term could be used, and would meet scenic objectives as well. (5) Average open—road density per square mile for a contiguous piece of winter range shall be 2 miles/square mile.
	2. Habitat Improvement	a. Improvements will be emphasized such as desirable forage species planting, fertilization, thinning and slash disposal.
D. Range		a. Not applicable.
E. Timber		
	1. Timber Management Planning	a. The Standards and Guidelines for Management Prescription 17, program element H, shall apply to this Management Prescription.
F. Water. Soil, Air		a. Meet Forest-wide Standards and Guidelines
G. Minerals and Geology		a. Operation plans will include provisions to maintain streamside bank in natural condition.
		b. Common variety minerals should not be removed.
H. Rural Community and Human Resources		a. Meet Forest-wide Standards and Guidelines.
J. Lands		
	1. Special Use Management	a. Applications for new permits will be reviewed to assure no degradation of river character or values, and for compliance with ROB classification.
	2. FERC License and permits	a. FERC application proposals shall not be recommended for approval.
	3. Land Ownership Planning	a. Group II - Retain National Forest land and acquire other ownership as opportunity or need occurs.
L. Facilities		
	1. Transportation Planning	a. Roads may occasionally bridge the river. Short stretches of conspicuous or long stretches of inconspicuous and well-screened roads could be allowed.
P. Protection		
	1. Fire Management Planning	a. Forest-wide Fire Protection Group D applies.
	2. Forest Peat Management	a. Meet Forest-wide Standards and Guidelines.

INTENSITY 5C: RECOMMENDED WILD RIVER

Desired Future condition: Wild rivers are generally ineccessable by road. but can be reached by trail or water. Vegetation is variedin size, species, and age and is predominately the product of natural succession, Vegetation may vary from natural openings to stands of mature and old—growth timber. The opportunity to interact within a natural environment away from the sights and sounds of man. i_5 available A high degree of challenge is offered.

Program Element	Standards and Guidelines
A. Recreation	
1. Recreation planning	a. Proposed recreation activities shall be compatible with Wild River values and recreation sites should be limited to simple comfort and convenience facilities and be located away from river shorelines. Such facilities will be of design and location which harmonize with the surroundings.
	b. Powerboats and off—road vehicles shall not be permitted in wild river corridors.
	c. As a minimum direction covering the semi-primitive non-motorized class of the Recreation Opportunity Spectrum (ROS) shall be met.
	d. Trails may be developed but must be located and constructed to be unobtrusive from the river or riverbank. Unobtrusive trail bridges could be allowed.
	e. Recreation special uses may be permitted for the purpose of providing river oriented recreation provided they are in keeping with the semi-primitive non-motorized ROS description
2. Visual Quality	a. See Forest-wide Standards and Guidelines for Visual Resource Management.
3. American Indian Religious and Cultural uses	a. Meet Forest-wide Standards and Guidelines.
B. Wilderness	a. Not applicable.
C. Wildlife and Fish	
1. Habitat Improvement	a. Structural habitat improvements allow utilizing native or natural appearing materials provided retention VQO can be met.
D. Range	a. Not applicable.
E. Timber	
1. Timber Management Planning	a. No scheduled harvest. Harvest may take place in the event of a catastrophic event such as fire, insects, disease, or blowdown. The intent of such harvest is limited to preventing further losses or protecting other resources or adjacent lands, and not for recovery of merchantable timber, preference given to those systems having the least effect on primitive values.
	b. Firewood cutting for commercial or domestic use

		should not be permitted.
F.	Water, Soil, Air	a. Meet Forest-wide Standards and Guidelines.
G.	Minerals end Geology	a. Operating plans shall be developed for proposed projects and shall include provisions to maintain streamside banks in their natural condition.
		b. Common variety mineral materials sources shall not be developed.
		c. Wild River corridors shall be studied to determine whether a mineral withdrawal is appropriate. Where appropriate initiate withdrawal action.
H.	Rural community and Human Resources	a. Meet Forest-wide Standards and Guidelines
J.	Lands	
	1. Special Use Management	a. Applications for new permits will be reviewed to assure no degradation of river corridors or values, and for compliance with ROS classification.
		b. New utility corridors shall not be permitted within or traversing river corridors.
	2. FERC License and Permits	a. FERC application proposals shall not be recommended for approval.
	3. Land Ownership Planning	a. Group II - retain National Forest land and acquire other ownerships as opportunity or need occurs.
L.	Facilities	
	1. Transportation Planning	a. No roads shall be permitted in Wild River Corridors
	2. Structures	a. All water supply dams and major diversions are prohibited.
		b. No flood control levees, dams. or other works are allowed in river channel or river corridor.
		c. A few minor existing structures could be allowed assuming such structures are not incompatible with the existing primitive and natural values of the river corridor. New structures not allowed except in rare instances to achieve recreation management objectives.
P.	Protection	
	1. Fire Management Planning	a. Forest-wide Fire Protection Group D applies.
	2. Forest Pest Management	a. Meet Forest-wide Standards and Guidelines.

6 SKAGIT WILD AND SCENIC RIVER

Goal: Manage the designated portions of the Skagit. Cascade. Sauk. and Suiattle Rivers as the Skagit Wild and Scenic River in accordance with the Skagit River Final Management Plan (Volume II) (1984).

Description of Lands Where Strategy Applicable: This strategy is applied to the Skagit Wild and Scenic River. Including 158.5 miles of designated river and 38,939 total acres.

Desired Future Condition: Refer to the management goals and specific management direction of the 1984 River Management Analysis and Plan.

Intensities in this Management Strategy: None

Management Direction as included in the River Management Plan — Skagit River Record of Decision August 8, 1984.

7 AMERICAN INDIAN RELIGIOUS AND CULTURAL USE AREAS

Goal: Allow for access to and protection of environmental conditions and values of sites and areas important to religious and ceremonial use by recognized American Indian tribes within the planning area.

Description of Lands Where Prescription Applicable: The prescription is applied to all Cemeteries, and selected Spirit Quest sites and legend sites, Cedar areas, Ceremonial Flora and Plant areas identified in the 1981 "Inventory of Native American Religious Use, practices, Localities and Resources. Sites and areas may be less than one acre or over 3.000 acres and are found throughout the Forest. Religious use areas are not shown on maps to protect their confidential nature Use areas may occur in wilderness, dispersed recreation, wildlife habitat allocations, and most other allocations.

Desired Future Condition: Areas vary from natural or naturally appearing to highly modified. The degree and nature of activity, and time of year during which activities may take place varies by the nature of the religious or ceremonial activity.

Intensities in this Management Prescription: None

Program Element		Standards and Guidelines
		For all activities under all Program Element consultation with appropriate American Indian tribe is required. (See Forest-wide Standards and Guidelines).
A. Recreation		
1.	Trail Planning	a. No new trails shall be located which lead directly to or cross these sites unless in consultation with the affected tribe(s) it is shown that such a location would not affect the quality and integrity of the site.
2.	Visual Quality	a. Meet the Visual Quality Objective of the Management Area as shown on the Forest Plan Map.
3.	American Indian Religious and Cultural Use	a. Meet Forest-wide standards and Guidelines.
4.	Facility and Site Construction	a. New campgrounds or recreational developments within the area shall be discouraged.
5.	Facility and Site Management	a. Existing facilities within the use area may remain. Consultation shall be undertaken to find means of mitigating existing adverse effects.
6.	Trail Construction	a. Trail Reconstruction in the area shall be timed to avoid conflict with known use periods of the sites
7.	Trail Systems Operation	a. Motorized recreation within the area shall be discouraged unless consultation with the affected tribe shows such use would not affect the quality and integrity of the site.
B. Wilderness		
1.	Wilderness Use Administration	a. Camping, stock grazing, and other activities that concentrate wilderness users shall be discouraged
C. Wildlife and Fish		
1.	Non-Structural Habitat Improvement	a. Any activity which may affect (even temporarily) stream quality, clarity, and stress flow in sensitive areas, or upstream from them, shall require consultation with the appropriate tribes to develop appropriate mitigation measures.

2. Structural Habitat Improvement	a.	Habitat improvement projects should not impair the religious or ceremonial use as determined by consultation with the affected tribe(s).
D. Range	a.	Not applicable.
E. Timber		
1. Timber Management Planning	a.	The Standards and Guidelines for the Management Areas as shown on the Forest Plan map shall apply.
	b.	Proposed timber management activities which way adversely affect the nature of the religious or ceremonial activity, even temporarily will require consultation to develop appropriate or mitigation measures.
2. Timber Harvest Administration	a.	Timber harvest activities should be scheduled for periods of non-use.
F. Water, Soil, and Air	a.	Meet Forest—wide Standards and Guidelines. Include consultation with effected tribe(s) for activities that impact use areas.
G. Minerals & Geology	a.	Meet Forest-wide Standards and Guidelines. Include consultation with affected tribe(s) for activities that impact use areas.
H. Rural Community and Human Resources	a.	Meet Forest-wide Standards and Guidelines.
J. Lands		
1. Special Use Management	a.	Avoid locating transportation and utility corridors in these areas.
2. FERC License and Permits	a.	Hydropower development projects upstream, or within the use area, which may adversely affect the nature of the religious or ceremonial activity, even temporarily will require consultation to determine appropriate avoidance of mitigation measures.
3. Land Ownership Planning	a.	Place all these lands in Group II — retain as National Forest.
L. Facilities		
1. Road Construction	a.	Construction of new roads within the zone of influence of sites shall be avoided unless such roads are determined, through consultation, not to adversely impact the value of the site for religious use.
P. Protection	a.	Meet Forest-wide Standards and Guidelines.

8A Mather Memorial Parkway

Goal: Manage the area to maintain and enhance its outstanding scenic and recreation qualities.

Description: The Parkway is classified by executive order. It encompasses a zone 1/2 mile either side of U S. Highway 410 and is managed primarily for scenic and recreational purposes

Desired Future Condition: The Mather Memorial Parkway will provide a Roaded Natural Recreation opportunity. The forest will be managed for its intrinsic values, emphasizing the old growth conifer stands. Developed recreation sites will be improved for customer satisfaction. Interpretive overlooks, and trails will enhance visitors understanding of natural and cultural resources, forest management and local recreation opportunities. Timber management practices may take place to enhance the overall objectives for the Parkway. These entries will be necessary to preserve species composition, primarily the Douglas—fir component. The objectives will to maintain a range of tree sizes with a continuum of large size trees.

Program Element	Standards and Guidelines
A Recreation	
1. Recreation Planning	a. Developed facilities will be improved to provide customer satisfaction where opportunities and interest warrant. The applicable standards and guidelines for developed recreation are in Management Area 3, program element A.
	b. Interpretive overlooks and trails will be added to enhance the visitors understanding of the forest and its opportunities.
	c. Trailheads will be constructed to support the trail system for improved convenience and safety of users. Additional trails will be constructed where opportunities and interest warrant.
	d. Facilities will be planned for the roaded natural and rural Recreation Opportunity Spectrum.
2. Visual Quality	a. Projects shall meet a Visual Quality Objective of Retention.
3. American Indian Religious and Cultural Use	a. Meet Forest-wide Standards and Guidelines.
4. Facility and Site Management	a. Signs and facilities are designed to complement the natural forest setting.
5. Use Administration	a. ORV use allowed in designated areas only
6. Trails Construction, Reconstruction, Operation	a. Trails are located and maintained to blend with topography and surrounding landscape
	b. Trails are located to take advantage of viewing opportunities
B. Wilderness	a. Not applicable
C. Wildlife and Fish	
1. Planning	a. Improvement of wildlife and fisheries habitat may be permitted.

2. Habitat Improvement	a. Improvements are appropriate as long as visitor conflict is minimized.
	b. Structures should blend in with the naturally established landscape.
	c. Seasonal visitor use and wildlife use should be coordinated to minimize conflicts.
D. Range	a. Not applicable
E. Timber 1. Timber Management Planning	a. Timber shall be managed on a non—scheduled basis, to meet recreation and visual objectives, and to reduce the risk of public injury from hazardous trees.
	b. All timber management intensities may be utilized to meet vegetation management prescription for the site.
	c. Logging practices shall be selected that provide the least impact to the site.
2. Silvicultural Examination and Prescription	a. Objectives of the prescription should be to: (ii) Create and/or maintain a regenerating natural environment that is, in visual aspects, pleasing and which resembles a natural setting. (ii) Maintain the characteristic old growth forest with its natural diversity of tree size, age, and species. (iii) Provide shade, wind protection, sunshine and views to complement the recreation environment.
3. Reforestation — Site Preparation For Planting and Seeding	a. Unwanted vegetation, slash, stumps or roots should be removed, as well as having the ground surface shaped before planting or seeding to retain the determined vegetation conditions for the site as outlined in the vegetation management prescription.
F. Water, Soil, and Air	a. Meet Forest-wide Standards and Guidelines.
G. Minerals and Geology	a. Inventory end/or validate existing mining claims and initiate title clearance on sites planned for development.
	b. Removal of common variety minerals should not be permitted.
	c. Recommend denial for application for leasable minerals.
	d. Sites not previously withdrawn shall be recommended for withdrawal from mineral entry.
	e. Developed sites shall be protected by standard and special stipulations in any leasing actions.
	f. No on—site occupancy.

		g. Applications will include stipulations to protect existing and/or future uses.
H. Rural community and Human Resources		a. Meet Forest-wide Standards and Guidelines.
J. Lands		
1. Special Use Management		a. Transmission towers should be designed to blend with the surrounding landscape.
2. Right-of-Way Grants		a. Right-of-Way corridors should be designed and located to blend with the surrounding landscape.
3. Land Ownership Planning		a. Group III — Retain, acquire, or dispose.
L. Facilities		
1. Transportation System Planning		a. Roads in the seen or potentially seen area should blend with natural form, line, color, and texture.
2. Road Construction and Reconstruction		a. Cut and fill slopes should be revegetated within one year of construction.
		b. Rockpits and stockpile sites should be located outside seen areas whenever possible and rehabilitated when located within seen areas.
3. FA&O Construction/ Reconstruction Facility Maintenance		a Buildings and other facilities should be designed and located to blend with the surrounding landscape.
		b. A cascadian architectural theme will be used to complement the CCC era architecture of the area.
P. Protection		
1. Fire Management Planning		a. Forest—wide Fire Protection Group A applies
2. Forest Pest Management		a. Meet Forest-wide Standards and Guidelines

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8B HEATHER MEADOWS — Goal: Manage the ares to maintain outstandingscenic quality and enhanced day-userecreation opportunities

Description of Lands Where Prescription Applicable Heather Meadows is located within the original Mt maker Recreation Area designated in 1926 by the Secretary of Agriculture Boundaries have since been modified by creation of the Mt. Baker Wilderness The remaining area is a developed day-use area in the summer and part of the Mt. Baker Ski Area in the winter (winter sports use is addressed in management area 3C). Recreation facilities are designed to enhance the viewing and interpretation of natural and cultural resources for the general public at the “easiest” access level feasible.

Desired Future Condition The outstanding scenery which draws people to this location is maintained in a natural condition. Physical facilities may be evident, design end construction will repeat color, shapes and lines compatible with the natural environment structures will have a “Cascadian” architectural theme inspired by the CCC architectural style. Access is by paved road with the system essentially in place. Trails provide hiking opportunities outside the wilderness end an “easiest” level is encouraged. Historic recreation and structures are restored and/or interpreted for the public. Encounters with other users are frequent. Vegetative management is for accomplishing recreational objectives. There is no scheduled harvest, and revegetation uses locally native species.

Standards and Guidelines	Program Element
A. Recreation	
1. Recreation Planning	a. Developed sites are designed for day use recreation such as hiking, picnicking, viewing scenery, visitor information and interpretive naturalist programs.
	b. The trail system is expanded to provide hiking opportunities outside of wilderness for the general public. An “easiest’ standard will be used where terrain permits.
	c. Interpretive facilities and programs will provide information on cultural and natural history and management.
2. Visual Quality	a. A Visual Quality Objective of Retention is maintained with deviations for developed facilities which are designed to blend into the natural environment.
3. American Indian Religious and Cultural Use	a. Meet Forest-wide Standards and Guidelines.
4. Facility and Site Management	a. Developed recreation facilities are designed for rural and urban recreation opportunity spectrum Refer to 3A. PUBLIC SECTOR DEVELOPED SITES for facility development standards and guidelines.
	b. A “Cascadian” architectural theme will be used to complement existing CCC era buildings.
5. Recreation Facilities end Site Management	a. Standards and Guidelines are the same as BA Public Sector Developed Sites.
6. Use Administration	a. Maintenance of trails within developed sites should be at a priority level 3, providing resource protection, and visitor convenience.
B. Wilderness	a. Not applicable.
C. Wildlife and Fish	
1. Planning	a. Improvement of wildlife and fisheries habitat may be permitted.
2. Habitat Improvement	a. Improvements are appropriate as long as visitor conflict is minimized and VQO’s are met.
	b. Seasonal visitor use and wildlife use should be coordinated to minimize conflicts.
3. Structural Habitat Improvement	a. Habitat improvement projects are generally acceptable, but they shall be unnoticed and/or blend into the natural landscape.
D. Range	a. Not applicable.
E. Timber	
1. Timber Management Planning	a. Timber shall be managed on a non-scheduled basis, to meet recreation objectives, and to reduce the risk of public injury from hazardous trees.
	b. Replant in native species.

F. Water, Soil, and Air	a.	Improvements are appropriate as long as visitor conflict is minimized.
	b.	Improvements or rehabilitation should blend with the natural landscape. Use endemic or native species for erosion control.
G. Minerals and Geology	a	High value recreation sites not previously withdrawn shall be recommended for withdrawal from mineral entry.
H. Rural Community and Human Resources	a.	Meet Forest-wide Standards and Guidelines.
J. Lands		
1. Special Use Management	a.	Do not issue permits which are not compatible with the goals of this prescription.
2. Land Ownership Planning	a.	Group III - Retain, acquire, or dispose.
L. Facilities		
1. Transportation System Planning	a.	Roads in the seen or potentially seen area should blend with natural form, line, color, and texture.
2. Road construction and Reconstruction	a.	Cut and fill slopes should be revegetated within one year of construction.
	b.	Rockpits end stockpile sites should be located outside seen areas whenever possible and rehabilitated when located within seen areas.
3. FA&O Construction/Reconstruction and Facility Maintenance	a.	Buildings and other facilities should be designed and located to blend with the surrounding landscape.
	b.	A Cascadian architectural theme will be used to complement the CCC era architecture of the area.
P. Protection		
1. Fire Management Planning	a.	Forest-wide Fire protection Group A applies.
2. Forest Pest Management	a.	Meet Forest-wide Standards and Guidelines.

8C SULPHUR CREEK BOTANICAL AREA

Goal: Protect unique low elevation silver fir stand for special botanical interest, research and education.

Description of Lands Where Applicable: An approximately 570 acre parcel of land located in Sulphur Creek on the south side of Mt. Baker. The area is a unique vegetative community for the elevation. The principal features include low elevation silver fir and associated species. The vegetation species are found on a lava flow which is influenced by cold air draining from the glaciers on Mt Baker Several species of vegetation are usually found only at more northern latitudes.

Desired Future Condition: Protection of natural plant communities/associations for educational end scientific values.

Program Element	Standards and Guidelines
A. Recreation	
1. Recreation Planning	a. Developed facilities are for the purpose of education and would be limited to trails and roadside turnouts.
	b. Dispersed recreation use should not be encouraged.
2. Visual Quality	a. Projects shall meet a Visual Quality Objective of Retention in the foreground and Partial Retention in the middleground.
3. American Indian Religious and Cultural Use	a. Meet Forest-wide Standards and Guidelines.
4. Facility and Site Management	a. All signs and facilities blend with surrounding landscape. On-site interpretation may be present.
B. Wilderness	a. Not applicable.
C. Wildlife and Fish	
1. Planning	a. Control of excessive animal populations may take place where such populations threaten desired plants.
D. Range	a. Not applicable.
E. Timber	
1. Timber Management Planning	a. Timber harvest, including salvage, shall not be scheduled.
	b. Hazard tree removal may only be permitted along roads or trails when required for safety.
F. Water, Soil, and Air	a. Meet Forest-wide Standards and Guidelines.
G. Minerals and Geology	a. Removal of common variety minerals shall not be permitted when the removal of vegetation is required. However. existing borrow sites may be utilized if the use does not require the removal of native vegetation.
	b. Recommend denial of application for leasable minerals.
	c. Sites not previously withdrawn shall be recommended for withdrawal from mineral entry.

H.	Rural community and Human Resources	a.	Meet Forest-wide Standards and Guidelines.
J.	Lands		
	1. Special Uses Management	a.	Do not issue permits which are not compatible with the goals of this prescription.
	2. Land Ownership Planning	a.	Place all these lands in Group II - retain or acquire when possible.
	3. FERC License and Permits	a.	Recommend only compatible uses (existing licenses and permits will be allowed).
L.	Facilities		
	1. Transportation System Planning	a.	Transportation system and utility corridors generally should not be allowed. If allowed, developments must be consistent with the goals of this prescription. (Existing facilities will be allowed and maintained.)
	2. FA&O Construction/Reconstruction and Facility Maintenance	a.	Structures should not be permitted unless botanical area characteristics can be maintained.
P.	Protection		
	1. Fire Management Planning	a.	Natural-occurring and human-caused fires shall be controlled at the minimum acreage.
	2. Forest Pest Management	a.	No action should be taken against insects and diseases unless an outbreak threatens the plants being protected or is inconsistent with management goals for adjacent areas.
	3. Vegetation	a.	Competing vegetation may be removed in order to preserve the continued existence of plant species of special interest.
	4. Collection permits	a.	Collection permits shall be required for the collection of any botanical specimens.

10 WILDERNESS	Goal:	Preserve and protect the wilderness character. Allow for naturalness and provide opportunities for solitude, challenge, and inspiration. Within these constraints, and following a policy of non-degradation management, provide for recreational, scenic, educational, scientific, and historical uses.

Description of Lands Where Prescription Applicable: This prescription is applied to those acres classified as Wilderness, including: Glacier Peak. Mt. Baker, Noisy-Diobsud, Boulder River. Henry M Jackson, Clearwater, and Norse Peak. Refer to the Alpine Lakes Management Plan for management direction for the Alpine Lakes Wilderness (See Management Prescription 21).

Desired Future Condition: Common to all 10A, 10B, 10C, 10D, 10E.

The ROS concept emphasizes that quality in outdoor recreation can best be achieved by providing a diversity of opportunities consistent with resource limitations to satisfy varying preferences of users. This concept is combined with factors for efficient management and adapted to wilderness in this plan. Wilderness ROS and their standards apply to all designated wilderness on the Forest (for specific direction regarding Alpine Lakes, consult the Alpine Lakes Area Land Management Plan).

Within each WROS Class there are Limits of Acceptable Change (LAC) which presuppose that certain areas (transition for example) of the wilderness will be allowed to receive relatively higher levels of use than other areas (trailless), and thus will receive higher levels of resource change or impact. Decisions about management of WROS Classes are aimed at making a conscious choice about the changes that will be allowed to occur. LAC should not be confused with a management objective that one is attempting to achieve. LAC is a maximum limit of change allowed. Managers try to achieve the best conditions possible rather than allowing conditions to deteriorate until this threshold is reached.

Wilderness must be managed to prevent degradation. The nondegradation principle directs that each Wilderness must essentially be as wild as it was at the tine of classification, or if conditions are not known and cannot be reconstructed for the tine of classification, the first Wilderness condition inventory should be used as the benchmark for maintaining Wilderness conditions. Nondegradation applies to all values of Wilderness social, physical, and biological factor. Additionally, conditions shall be improved in situations where natural processes are not operating freely, and where the values for which a Wilderness was created are impaired.

The standards listed below and summarized at the end of this Management Prescription were derived from field study and professional judgment.

Carrying Capacity — Carrying capacities have been developed to estimate the amount of recreation visitor use that a wilderness or portion of wilderness, could support without degradation of resource values carrying capacity is commonly expressed in Recreation Visitor Days (RVDs) per year or people-at-one-time (PAOT).

In the Recreation Opportunity Spectrum system, coefficients have been developed that help in the estimation of carrying capacity. These coefficients are the estimated RVD's per average acre per year, that a WROS class can support. Different coefficients are identified for each class and are theoretical estimation of capacity based on average conditions.

For the Land and Resource Management Plan for the Mt Baker-Snoqualmie National Forest, the following carrying capacity coefficients were developed in coordination with adjacent Forests sharing management of the Washington State Cascade Range Wilderness:

Zone	RVD/Acre/Year	RVD/Sq. Mile/Year
Transition	15 000	9600
Trailed	3.750	2400
General Trailless	.25	160
Dedicated Trailless	.078	50
Special Area	To be established after study	

Limits of Acceptable Change — Recreation visitor use of wilderness cannot occur without some degree of impact on wilderness resources. Impact occurs on the physical and biological features of wilderness as the quality of the recreation experience of other visitors. There is a point at which increasing impact of visitor use will result in unacceptable degradation outside the intent and direction of the Wilderness Act. The Regional Nondegradation Policy is described in FSM 2322 03.

The limits of acceptable change concept is a system to establish limits on the change that can be permitted within the nondegradation policy, before management actions must be taken to reverse trends of change. These actions can be either directed to improve the knowledge and abilities of the users or to reduce the numbers of visitors in impacted areas during critical time periods, or both.

The system has incorporated limits or maximum bevels for which key indicator resource values can change before management actions are implemented. The system assumes that the condition of key indicators which are easily quantifiable and measurable reflect the general condition of resource values which are not easily measured, the impact of human-caused noise and human disturbance of wildlife are examples of impacts not easily measured.

The limits of acceptable change levels or standards are different for each Wilderness Recreation Opportunity Spectrum Class. The standards for the Dedicated Trailless tolerate the least impact in order to achieve the most pristine wilderness conditions and the beast evidence of mans activity. The Transition class standards are more tolerant reflecting management of the area for a semi-primitive recreation experience and physical evidence of man’s activity.

The table following the standards and guidelines summarizes the key indicators that will be measured in monitoring the physical, biological, and social condition and the standards for each Wilderness Recreation Opportunity Spectrum Class.

When monitoring results indicate that the condition of one or more of the key indicators is approaching the standard, or limit of acceptable change, a trend analysis will be done this analysis will assess the changing conditions and identify all factors of visitor use contributing to the change cost effectiveness of possible management actions and recreation opportunity tradeoffs will be considered in the analysis. The analysis will identify alternative courses of action and a most suitable alternative will be chosen and implemented. Actions appropriate to resolve impact problems are shown in the wilderness Forest-wide Standards and Guidelines

There is a high probability that initial monitoring results in some areas will indicate impact conditions in excess of standards established for particular WROS Classes. In this event, monitoring efforts will need to be intensified to establish the current trends. The objectives in these situations will be to institute management actions to achieve an improving trend. Downgrading the Wilderness Recreation opportunity Class to a class more tolerant of impact will not be an option.

Over the long term, wilderness management activities should bead to an improving trend in the effects of man's activity on wilderness resources in all WROS classes.

Intensities in this Management prescription:

10A. Transition
10B. Trailed
10C. General Trailless
10D. Dedicated Trailless
10E. Special Areas

INTENSITY 10A: TRANSITION

This trailed class includes system trails and may include user-made trails that have a travelway worn to mineral soil over long distances, and is characterized by having a large proportion of day—users who are often sixed in with overnight and long distance travelers This area is usually adjacent to trailheads and extends into the wilderness a distance that is typically traveled in one day by a hiker. This class includes areas accessed by trail, around lakes or other attractions used by people, or pack stock within the day—use influence area The class extends at beast 500 feet on either side of a trail, but this may be wider around bakes or heavily used areas. The length of this trail class will be established for each trail depending on ease of travel, distance from trailhead outside wilderness, and destination attractions inside wilderness. This generally will be 3 to 5 miles inside the wilderness boundary. If the day-use activity occurs entirely outside wilderness, the trail will have no Transition class.

Opportunities for exploring and experiencing isolation contrast with adjacent more developed areas outside the Wilderness, though the visitor can expect the greatest number of people compared to other wilderness classes This class introduces users to the Wilderness setting. This area normally provides relatively bow challenge or risk in using outdoor skills compared to other classes. The managed trail system nay include trails classified as "easiest," "more difficult," or "most difficult," and they shall receive maintenance activities as appropriate for the primary objective and difficulty level. Users nay encounter improvements where the frequency and magnitude of use dictates the need for such improvement to protect the wilderness resource.

Program Element	Standards and Guidelines
A. Recreation 1. American Indian Religious and Cultural Use a.	Meet Forest-wide Standards and Guidelines.
B. Wilderness 1. Wilderness Use Administration	a. capacity coefficient is 15 RVDs per acre per year. b. Vegetative loss at campsites shall not exceed 1,000 square feet, or cumulatively, 3% from any acre. c. Mineral soil exposed shall not exceed 200 square feet at campsites. d. Trees felled or with scarring shall not exceed 10 trees, or 50 percent of trees on site, whichever is smaller. e. Average number of parties encountered per day when traveling during snow-free season shall not exceed 8. f. Maximum encounters with other groups on any one day shall not exceed 30. g. Unit size (people and stock) shall not exceed 12 unless otherwise authorized under Special Use Permit. h. The number of "campsites" per 160 acre area shall not exceed 20.

C.	Wildlife and Fish 1. Occupied campsites visible shall not exceed 4.	a.	Displacement of wildlife due to visitor use can be significant and should be an overriding concern in wilderness where the primary objective is to maintain a natural ecosystem. Since only a small amount is managed in this class, evaluation of visitor use effects on habitat effectiveness should include adjacent areas. Visitor use must not decrease habitat effectiveness in each wilderness (average of all WROS classes) for any species by more than 20%.
D.	Range	a.	Meet Forest-wide Standards and Guidelines.
E.	Timber	a.	Not applicable
F.	Water, Soil, and Air	a.	Meet Forest-wide Standards and Guidelines.
G.	Minerals & Geology	a.	Meet Forest-wide Standards and Guidelines.
H.	Rural Community & Human Resources	a.	Meet Forest-wide Standards and Guidelines.
J.	Lands	a.	Meet Forest-wide Standards and Guidelines.
L.	Facilities	a.	Meet Forest-wide Standards and Guidelines.
P.	Protection 1. Fire Management Planning	a.	Forest-wide Fire Protection Group B applies.

INTENSITY 10B: TRAILED

This class includes all managed system trails extending beyond the Transition Class. This class extends at least 500 feet on either side of the trail but may be wider around lakes or heavily used areas.

A moderate to high degree of opportunity exists for exploring and experiencing isolation (from the sights and sounds of civilization), independence, closeness to nature, tranquility and self-reliance through the application of no trace skills in a natural environment that offers a moderate to high degree of challenge and risk as one travels further from trailheads. The managed trail system may include trails classified as “more difficult,” or “most difficult” and they shall receive maintenance activities as appropriate for the primary objective and difficulty levels. Visitors must be prepared for overnight camping, outdoor living, and changes in weather. A variety of user restrictions nay be implemented to control use impacts as the need arises.

Program Element	Standards and Guidelines
A. D-P	a. Sane as 10A.
B. Wilderness 1. Wilderness Use Administration	a. Capacity coefficient is 3,75 RVD’s per acre per year. b. Vegetative loss at campsites shall not exceed 1,000 square feet, or 3 percent from any acre. c. Mineral soil exposed shall not exceed 200 square feet. d. Trees felled or with scarring shall not exceed 6 trees, or 25 percent of the trees on site whichever is smaller. e. Average number of parties encountered when traveling per day per snow-free season shall not exceed 5. f. Maximum encounters with other groups on any one day shall not exceed 10. g. Unit size (people and stock) shall not exceed 12 unless otherwise authorized under Special Use Permit. h. The number of “campsites” per 160 acre area shall not exceed 10. i. Occupied campsites visible shall not exceed 3.
C. Wildlife and Fish	a. Displacement of wildlife due to visitor use can be significant and should be an overriding concern in wilderness where the primary objective is to maintain a natural ecosystem. Since only a small amount is managed in this class, evaluation of visitor use effects on habitat effectiveness should include adjacent areas. Visitor use must not decrease habitat effectiveness in each wilderness (average of all WROS classes) for any species by more than 20%.

INTENSITY 10C: GENERAL TRAILLESS

This class is characterized by area not falling into the other classes. It generally attracts lower use because of the lack of constructed trails end a relative lack of attractions. The area is unmodified and user—made trails are not encouraged, but they may exist. If obvious user-made trails become well established, or are causing resource damage, consideration will be given to restricting use or reconstructing these trails in order to protect the wilderness resource from further damage. Reclassification from general trailless to trailed requires a supplement of the Forest Plan, which shall include full public involvement. This class is available for new trail construction only to protect resources or nest management objectives by dispersing use. If this should occur, the trail will be constructed to no higher than "more difficult" or "most difficult" standards.

This class provides an outstanding opportunity for isolation and solitude, mostly free from evidence of human activities and with very infrequent encounters with others. The user has outstanding opportunities to travel cross-country utilizing a maximum degree of outdoor skills, often in an environment that offers a very high degree of challenge and risk. No-trace camping skills are strongly encouraged and any user built "improvement" is undesirable and shall be removed.

Program Element		Standards and Guidelines	
A.	D—P	a	Same as 10A.
B.	Wilderness		
	1. Wilderness Use Administration	a	Capacity coefficient is 0.25 RVD5 per acre per year.
		b.	Vegetative loss at campsites shall not exceed 500 square feet.
		c.	Mineral soil exposed shall not exceed 100 square feet.
		d.	Trees felled or with scarring shall not exceed 4 trees, or 25 percent of trees on site, whichever is smaller.
		e.	Average number of parties encountered when traveling during snow-free season shall not exceed 2 per day.
		f.	Maximum encounters with other groups on any one day shall not exceed 4.
		g.	Unit size (people and stock) shall not exceed 12 unless otherwise authorized under Special Use Permit.
		h.	The number of 'campsites' per 160 acre area shall not exceed 5.
		i.	Occupied campsites visible shall not exceed 2.
C.	Wildlife and Fish	a.	Displacement of wildlife due to visitor use can be significant and should be an overriding concern in wilderness where the primary objective is to maintain a natural ecosystem. Since only a small amount is managed in this class, evaluation of visitor use effects on habitat effectiveness should include adjacent areas. Visitor use must not decrease habitat effectiveness in each wilderness (average of all WROS classes) for any species by more than 10%.

INTENSITY 1OD: DEDICATED TRAILLESS

This class is managed forever trailless; obvious user-made travel ways are not permitted. Class nay include way trails and routes not discernible as human related, the condition to be avoided is vegetation and soil loss along a continuous tread. The class say include popular attractions accessed only by cross-country travel. Human impact and influence is, by design, minimal therefore user restrictions may be necessary to insure that trailless experiences remain. Areas chosen for Dedicated Trailless should be of a size that will allow for a meaningful experience and can be reasonably protected for the experiences and remoteness identified. Generally the class is at least 2,000 — 3,000 acres in size and contains whole drainages or basins out of sight and sound of trails, or areas outside the wilderness.

This class provides an outstanding opportunity for isolation and solitude, free from evidence of human activities and with very infrequent encounters with users. The user has outstanding opportunities to travel cross—country utilizing a maximum degree of outdoor skills, often in an environment that offers a very high degree of challenge and risk.

Program Element	Standards and Guidelines
A. D—P	a. Same as 10A.
B. Wilderness	
1. Wilderness Use Administration	a. Capacity coefficient is .078 RVDs per acre per year.
	b. Vegetative loss at campsites shall not exceed 0 square feet.
	c. Mineral soil exposed shall not exceed 0 square feet.
	d. There shall be no trees felled or scarred at the sight.
	e. Average number of parties encountered when traveling during snow-free season shall not exceed 1 per day.
	f. Maximum encounters with other groups on any one day shall not exceed 1.
	g. Unit size (people and stock) shall not exceed 12, but strongly encourage 6 people and 0 stock, unless otherwise authorized under Special Use Authorization.
	h. The number of “campsites’ per 160 acre area shall not exceed 2.
	i. Occupied campsites visible shall be 0.
C. Wildlife and Fish	a. Displacement of wildlife due to visitor use can be significant and should be an overriding concern in wilderness where the primary objective is to maintain a natural ecosystem. Since only a small amount is managed in this class, evaluation of visitor use effects on habitat effectiveness should include adjacent areas. Visitor use must not decrease habitat effectiveness in each wilderness (average of all WROS classes) for any species by more than 10%..

INTENSITY 10E: SPECIAL AREAS

The intent of this class is to provide for changes in standards or other management guidelines for unique areas Situations that qualify for Special Area designation include congressionally acknowledged areas, areas of significant cultural or historic value, areas with special wildlife considerations and areas that have limited management options to deal with unique situations. Areas do not qualify for this class for administrative convenience in dealing with overuse. This class is rare and will not exist in many wildernesses

Experience opportunities vary widely depending upon the special feature and its location A high number of other visitors may or nay not be encountered. Rules and regulations to protect resources or preserve visitor experience can be expected. The following have been identified as Special Areas

Special Area Name	Significance	Standards and Guidelines
A. D—P		a. Same as 10A
B. Wilderness		
Coleman Glacier Climbing Route- Mt. Baker Wilderness	Second most popular climbing route in State	a. Capacity coefficient will be in RVD's per acre per year. Coefficient to be developed thru ID Team analysis. b. Same as 10A. c. Same as 10A. d. Same as 10A. e. Average Number of parties encountered per day when traveling shall not exceed 16. f. Campsites visible shall not exceed 10. g. Same as 10A. h. Same as 10A.
Winchester Mountain Lookout Mt. Baker Wilderness	Lookout addressed in Committee Reports of enabling legislation for 1984 Wilderness bill	a. Accept non-conforming use, Standards and Guidelines same as 10A.
Three Fingers Lookout Boulder River Wilderness	Lookout addressed in Committee Reports of enabling legislation for 1984 Wilderness bill	a. Accept non-conforming use, Standards and Guidelines same as 10B.
Miners Ridge Lookout Glacier Peak Wilderness	Lookout addressed in Committee Reports of enabling legislation for 1984 Wilderness bill	a. Accept non-conforming use, Standards and Guidelines same as 10B.
Green Mountain Lookout Glacier Peak Wilderness	Lookout addressed in Committee Reports of enabling legislation for 1984 Wilderness bill	a. Accept non-conforming use, Standards and Guidelines same as 10B.

	Park Butte Lookout Mt. Baker Wilderness	Lookout addressed in Committee Reports of enabling legislation for 1984 Wilderness bill	a. Accept non-conforming use, Standards and Guidelines same as 10A.
	Cascade Glacier U.S.G.S. Facility Glacier Peak Wilderness	Glacial Research Station Maintained by Geological Survey	a. Accept non-conforming use, periodically review Special Use Permit, and manage same as 10C.
	Green Mtn Research Natural Area (Proposed) Glacier Peak Wilderness	Dual designation with Wilderness	a. Follow Wilderness or RNA Standards and Guidelines, whichever is more restrictive.
	Lily Lake Research Natural Area (Proposed) Clearwater Wilderness	Dual Designation with Wilderness	a. Follow Wilderness or RNA Standards and Guidelines, whichever is more restrictive.
	North Fork Nooksack Research Natural Area Mt Baker Wilderness	Dual designation with Wilderness	a. Follow Wilderness or RNA Standards and Guidelines, whichever is more restrictive.
	North Fork Nooksack Research Natural Area (Proposed expansion) Mt. Baker Wilderness	Dual designation with Wilderness	a. Follow Wilderness or RNA Standards and Guidelines, whichever is more restrictive.
	Chowder Ridge Research Natural Areas (Proposed) Mt. Baker Wilderness	Dual designation with Wilderness	a. Follow Wilderness or RNA Standards and Guidelines, whichever is more restrictive.
	Long creek Research Natural Area Boulder River Wilderness	Dual designation with Wilderness	a. Follow Wilderness or RNA Standards and Guidelines, whichever is more restrictive.
C.	Wildlife and Fish		a. Displacement of wildlife due to visitor use can be significant and should be an overriding concern in wilderness where the primary objective is to maintain a natural ecosystem. Since only a snail amount is managed in this class, evaluation of visitor use effects on habitat effectiveness should include adjacent areas, visitor use mustnot decrease habitat effectiveness in each wilderness (average of all WROS classes) for any species by more than 20%.

Summary of Management Intensities Standards and Guidelines for Wilderness 1/

Standard	Intensities				Coleman Glacier
	Transition	Trailed	General Trailless	Dedicated Trailless	Special Area
Capacity coefficient RVD's/acre/year	15.000	3.750	0.25	0.078	To be determined
Veg. Loss at Campsite (square feet) 2/	1.000 (or 3% from any acre)	1.000	500.0	0	1.000
Mineral Soil Exposed (square feet)	200	200	100	0	200
Trees Scarred or Felled or Percent of Trees on a Sits Scarred or Felled 3/	15 (50)	15 (50)	7 (25)	0 (0)	15 (50)
Average number parties encountered when traveling day/snow-free season 4/	8	5	2	1	16
Maximum Encounters on Anyday 5/	30	10	4	1	To be determined
Unit size limit (people and stock together) unless otherwise author-ized under Special Use Permit 6/	12	12	12	12 (strongly encourage 6 people. 0 stock)	12
Number of campsites per 160 Acre Area 7/	20	10	5	2	To be determined
Occupied campsites visible from other campsites 8/	4	3	2	0	10

1/ A standard nay be made more restrictive on site-specific areas at the discretion of the District Ranger, if resource damage is occurring. These areas will be identified by name and the lower LAC documented.

2/ Vegetation Loss at Campsites

This indicator, measured in square feet using a transect method, was determined in U.S.F.S. Research Paper INT-284 (1982) as being an excellent indicator of soil changes and as a good measure of areal extent of site impacts.

Both visual impacts and physical/ecological impacts of campsite use are reflected in this indicator, which can be measured fairly accurately using methodology developed in the mid-1970s by Schreiner, Moorehead, Koch and others.

3/ Trees Scarred or Felled

This indicator is one of the easiest to measure and is the only LAC proposed which deals with the effects of firewood gathering, and general site vandalism. Although some tree damage is inevitable, the cumulative effects over time can become critical, and therefore monitoring the trends of this indicator is essential, given the near impossibility of restoration.

4/ Average Encounters

Although maximum encounters is one way of monitoring social impacts, it is also desirable to monitor average number of parties encountered when travelling per day during the snow—free season as well. Due to the limits of personnel and funds, constant patrol is not possible in many areas and a maximum level of encounters could be difficult to monitor in these places Also, average encounters is more a measure of the day—to—day situation which the majority of visitors will be subject to Again, this indicator may be measured by patrols, encounters, or permits.

5/ Maximum Encounters

This indicator is an upper threshold LAc for social impact, indicating a level of use where the WROS class no longer retains its character. Although this say not be easily monitored in all areas, it is a necessary limit tied to definition of the WROS opportunity for solitude. Maximum encounters per day can be variously monitored by counters, observation, or permits

6/ Special Use Permit may be denied if other standards are being exceeded or resource damage is expected. Permit must specify route of travel, camp locations, dates, and other conditions necessary to meet management objectives Llamas are considered stock and are counted the same as horses and people

7/ Number of Sites Per Any 160 Acre Area

This indicator, as suggested by Stankey at al, is an indicator of campsite density and an indirect measure of aggregate site impacts. In many areas individual campsites sight have acceptable levels of impact, yet the total number of sites far exceeds need In such instances, unnecessary physical and social impacts occur due to the haphazard location and selection of sites. This LAC indicator is easily measured from a Cods—A—Site or similar site inventories and is based on 160 acres (1/4 section) since most destination spots will fall within this area.

8/ Campsites Visible From Each Site

Campsites visible is largely an indicator of social impacts, and is our only measure of in—camp social impact. Campsites visible is a measure which can be attained from a Code—A—Site or similar inventories, and is fairly easily and accurately measured.

11 OLD-GROWTH HABITAT (SPOTTED OWL)

Goal: Provide and maintain the nature and old growth forest ecosystem as habitat for species that depend upon or utilize old growth for a significant portion of their habitat.

Description of Lands Where Prescription Applicable: Old growth habitat is distributed throughout the forest and exhibits the following characteristics: stand overstory dominated by live mature and old growth trees; canopy structure is multi—layered with trees of varying age classes; large numbers of standing dead trees or snags in a variety of decomposition stages. downed logs and woody material on the forest floor, located generally below 4.000 feet in elevation. The management indicator species for this habitat is the northern spotted owl. Management Area 11 consists of a network of Spotted Owl Habitat Areas (SOHA's). Generally, each SOHA has a 300 acre core end a total of 2.200 acres of suitable habitat within a 2.1 mile radius circle Some exceptions occur due to availability of habitat, and differing levels of information about specific areas.

Desired Future Condition: Evidence of human activity may be present but it does not dominate the environmental setting or significantly alter the old growth characteristics. Timber harvest is not permitted in these old growth areas with some exceptions. construction of new access routes — roads or trails — is limited and nay be affected by season and species involved. Old growth areas are protected from fire. Isolated disease and insect outbreaks are natural occurrences in an old growth ecosystem. Controls will be implemented if significant damage or alteration to the ecosystem and surrounding forest land is anticipated.

Intensities in this Management Prescription: None

Program Element	Standards and Guidelines
A. Recreation 1. Recreation Planning	a. Developed sites will be allowed in SOHA's outside of core areas, the applicable Standards and Guidelines are found in Management Prescription BA. program element A. b. Expansion of existing developed sites should be carefully evaluated to insure that habitat values are not detrimentally impacted Construction of new facilities will not be allowed in SOHA core areas. c. Existing nonmotorized trails and trail use will be permitted in SOHA. including core area. d. New non-motorized trail construction may be permitted in these areas including SOHA core areas, provided: 1) core area has been determined using Regional standards, and 2) biologist has been consulted to determine trail will not impact these areas. e. On and off—trail motorized vehicle use is prohibited in core areas, however. may be permitted in other portions of SOHA on designated trails. Management and recreation activities will be scheduled to minimize disturbance between February 15 and August 15. f. Trail construction and reconstruction activity should be restricted in S0HAs during the breeding period from February 15 - August 15 within the core area Management activities will be scheduled to minimize disturbances between February 15 and August 15 throughout the SOn, unless it can be determined that owls are not actively using the area while construction/reconstruction is scheduled.

2. Visual Quality	a.	A Visual Quality Objective of retention should be met from primary viewsheds (see figure 4-1a & 4-1b) and trails within the designation.
3. American Indian Religious and Cultural Use	a.	Meet Forest—wide Standards and Guidelines
B. Wilderness	a.	Not applicable.
C. Wildlife and Fish		
1. Planning	a.	Core areas that are immediately adjacent to a SOHA boundary shall be verified prior to timber harvest to ensure protection of the nest.
	b.	Cooperate and coordinate on any research studies of old growth management.
	c.	Conduct monitoring necessary to determine effectiveness and condition of existing inventory of habitat improvements.
	d.	Management activities shall be scheduled to minimize disturbances between February 15 and August 15.
	e.	Conduct inventory and monitoring of suitable habitat and owl occurrences within SOHA's.
2. Habitat Improvement	a.	Habitat improvement may be done to correct resource damage, if compatible with SOHA objectives.
D. Range	a.	Not applicable.
E. Timber		
1. Timber Management Planning	a.	Timber management activities, including salvage of blowdown, and dead, or down material shall not normally be conducted. Exceptions are permitted where a portion of one of these areas is lost to blowdown or other catastrophic event that significantly changes the old growth stand structure to the point it is no longer suitable habitat, and salvage operations will not further adversely impact habitat requirements. When this situation occurs, and prior to beginning salvage operations, the oldest adjacent stands will be identified and managed so as to replace portion lost.
2. Timber Sale Preparation	a.	Trees within these areas nay be used as tailholds and/or rigging provided the tree shall not be felled.
	b.	Management activities will be scheduled to minimize disturbances throughout the SOHA between February 15 and August 15.
F. Water, Soil, and Air		
1. Planning	a.	Meet Forest-wide Standards and Guidelines.
2. Improvement	a.	Watershed restoration projects may be done to correct resource damage, if the project does not conflict with spotted owl habitat values.

		b. Management activities will be scheduled to minimize disturbances throughout the SOHA between February 15 and August 15
G. Minerals and Geology		a. These areas may be withdrawn from mineral entry following NEPA analysis and Bureau of Land Management concurrence. Appropriate protection clauses will be inserted in mineral leases.
		b. If activities that do not involve removal of timber are approved, no activities shall be permitted between February 15 - August 15.
		c. Activities that reduce habitat in areas outside of the core shall require replacement of that habitat to maintain at least 2,200 acres.
H. Rural Community and Human Resources		a. Meet Forest-wide Standards and Guidelines.
J. Lands		
	1. Land Ownership Planning	a. Old growth habitat lands considered critical to old growth species viability or necessary to insure distribution criteria will be placed in Group III, available for lend exchange, as long as proponent's lands contain equal habitat and meet distribution requirements. Otherwise such lands shall remain in Group II.
L. Facilities		
	1. Transportation System Planning	a. Avoid locating roads in SOHA'a outside of core areas. Those proposed road locations that involve these areas will be analyzed to assure the objectives of managing these habitats is maintained and acreage of habitat lost is replaced.
	2. Road Construction and Reconstruction	a. Prior to construction or reconstruction. SOHA core area must be verified.
		b. No new road construction shall be permitted in SOHA core area.
	3. Road Operation	a. In SOHA core areas, existing roads shall be permitted provided that local roads that the Forest Service has existing, valid rights, be closed at the end of each activity period.
		b. When feasible, restrict permitted activity in a SOHA core during the period of February 15 - August 15.
P. Protection		
	1. Fire Management Planning	a. Forest-wide Fire Protection Group A applies.
	2. Forest Pest Management	a. Integrated pest management concepts are permitted only when spotted owl habitat values can be maintained.

12 MATURE AND OLD GROWTH WILDLIFE HABITAT (PINE MARTEN, PILEATED WOODPECKER)

Goal: Provide and maintain mature and/or old growth forest as habitat for those species that can utilize either for their primary habitat needs.

Description of Lands Where Prescription Applicable: Mature and/or old growth habitat is distributed throughout the Forest and exhibits the following characteristics. Mature stands generally have large diameter (21' dbh) standing trees, a multi-layer canopy component; moderate numbers of standing dead trees or snags in a variety of decomposition stages, including down logs and woody material on the forest floor. Old growth overstory is dominated by large diameter trees generally 21" plus, a multi-layered (usually 4) stand, and large numbers of standing dead trees or snags in a variety of decomposition stages, including down logs and woody material on the forest floor. The management indicator species that are dependent on mature plant communities and also use old growth are the pine marten and pileated woodpecker.

Desired Future Condition: Evidence of human activity may be present but it does not dominate the environmental setting or significantly alter the mature or old growth characteristics. Dedicated habitat will be maintained as either old growth or nature stands of titber with the characteristics of each described above. There will be opportunities for visitors to interact with a natural environment to view and/or hunt wildlife.

Intensities in this Management Prescription: None

Program Element	Standards and Guidelines
A. Recreation	
1. Recreation Planning	a. The applicable Standards and Guidelines for Developed Recreation are found in Management prescription 3A, program element A.
	b. Expansion of existing developed sites or construction of new sites will not be allowed.
	c Existing nonmotorized trails and trail use will be permitted in these areas.
	d. New non-motorized trail construction may be permitted in these areas provided: 1) the area has been determined using Regional standards, 2) biologist has been consulted to determine trail will not impact these areas.
	e. Existing motorized vehicle use nay be permitted on designated trails. Management and recreation activities may be scheduled to minimize disturbance between April 1 - June 15.
2. Visual Quality	a A Visual Quality Objective of retention should be met from primary viewsheds (See Figure 4—1a & 4—1b) and trails within the designation.
3. American Indian Religious and Cultural Use	a. Meet Forest-wide Standards and Guidelines.
B. Wilderness	a. Not applicable.
C. Wildlife and Fish	
1. Planning	a Cooperate and coordinate on any research studies on pileated woodpecker or pine marten.
	b. Snag habitat will be maintained or created to at least nest minimum requirements for cavity-nesters as stated in Forest-wide Standards and Guidelines.

		c. Down log component for all species represented by this habitat management prescription will follow density, decay class, size class, and distribution characteristic to the pine marten.
		d. Conduct monitoring necessary to determine effectiveness and condition of existing inventory of habitat improvements.
		e. Conduct inventory and monitoring of Management Area to determine habitat suitability and occupancy.
	2. Habitat Improvement	a. Habitat improvement may be done to maintain or enhance the areas.
D. Range		a. Not applicable.
E. Timber		
	1. Timber Management Planning	a. Timber management activities, including salvage of blowdown, dead, or down material shall not normally be conducted. Exceptions are permitted where a portion of one of these areas is lost to blowdown or other catastrophic event that significantly changes the old-growth habitat structure to the point it is no longer suitable habitat, and salvage operations will not further adversely impact habitat requirements. When this situation occurs, and prior to beginning salvage operations, the oldest adjacent stands will be identified to replace portion lost.
	2. Timber Sale Preparation	a. Trees within these areas may be used as tailholds and/or rigging provided the tree shall not be felled.
F. Water, Soil, and Air		
	1. Planning	a. Meet Forest-wide Standards and Guidelines.
	2. Improvement	a. Meet Forest-wide Standards and Guidelines.
G. Minerals and Geology		a. These areas may be withdrawn from mineral entry and appropriate protection clauses will be inserted in mineral leases.
		b. Activities that reduce habitat shall require replacement of that habitat to maintain at least that amount recommended in the Regional Guide.
H. Rural Community and Human Resources		a. Meet Forest-wide Standards and Guidelines.
J. Lands		
	1. Land Ownership Planning	a. Old growth and nature forest habitat lands considered critical to old growth and mature forest species viability or necessary to insure distribution criteria will be placed in Group III, available for land exchange as long as proponent's lands contain equal habitat and meet distribution requirements, otherwise. such lands shall remain in Group II.
L. Facilities		
	1. Transportation System Planning	a. Avoid locating roads in these areas. If a proposed road location involves crossing through these areas, an analysis will be made to assure the objectives for managing these areas is maintained.

	2. Road Operation	a. In these areas, existing roads shall be permitted provided that local roads that the Forest Service has existing valid rights shall be closed at the end of each activity period.
P. Protection		
	1. Fire Management Planning	a. Forest-wide Fire Protection Group A is applicable except.
	2. Forest Pest Management	a. Integrated pest management concepts are permitted, except where use of pesticides conflicts with old growth habitat management.

13 WATERSHED, WILDLIFE, and FISHERIES

Goal: To maintain or improve water quality and EMPHASIS IN RIPARIAN AREAS to produce various levels of potential habitat capability for various species of fish within designated riparian areas. Also maintain or enhance habitat for riparian associated wildlife species.

Descriptions of Lands Where Prescription Applicable: This prescription is applicable to those lands adjacent to perennial and intermittent streams - class I, II, and deeply incised Class III streams - lakes, wetlands, ponds, seeps, floodplains, and it includes the aquatic and the riparian ecosystems. These lands also support a diversity of plant species, being dominated by species preferring or tolerating wet or moist site conditions.

Riparian areas contain a variety of resource values (water quality, fish and wildlife habitat. and soil productivity). This strategy is designed to maintain and/or improve these resource values, with special emphasis on water quality and fish and wildlife habitat. Actual area and boundaries of these riparian areas will be determined at the project level of planning.

Desired Future Condition: Meet or exceed State/Federal water quality standards. Maintain current (existing) levels of habitat capability of all fish species. Fish habitat capability is measured by the following four in-channel features channel stability, streambank stability, condition of pools, and the presence or absence of large woody debris. In some areas increase habitat capability for targeted fish species (habitat restoration or enhancement). Maintain, and in some cases, improve riparian vegetation diversity. Maintain. and in some areas improve, existing levels of habitat capability of all riparian dependent wildlife species through restoration and/or enhancement. A variety of plant and animal species are present, hardwood tree species are more common here than elsewhere. A variety of dead trees, standing and downed, are common created openings are small and widely distributed. The riparian area will include mature trees that may be managed on a normal rotation, as well as larger older trees to be managed on an extended rotation (160+ years). Some trees are not planned to be harvested, as they are needed for slope stability or future large woody debris in the stream systems.

INTENSITY 13D LEVEL III ANADROMOUS, POTENTIAL RESIDENT FISH HABITAT CAPABILITY

Program Element	Standards and Guidelines
A. Recreation	
1. Recreation Planning	a. When planning any new development and a conflict exists that conflict will be resolved in favor of the dependent riparian resources and values (soil, water, fish, and wildlife.)
	b. ROS settings can range from primitive to roaded natural.
2. Recreation Use	a No ground or water channel disturbance from any ORV use.
3. Visual Quality	a Visual Quality Objectives of retention to modification consistent with adjacent management areas.
4. American Indian Religious and Cultural Use	a. Meet Forest-wide Standards and Guidelines.
5. Trail Planning	a. Nonmotorized trail facilities are permitted. Existing ORV use will be permitted on roads or trails designated for that use.
	b. New ORV trail construction/reconstruction activities will be permitted in designated riparian areas only when stated riparian objectives can be accomplished. If ORV activities are allowed, they should be restricted to timing and/or access due to fish migration and/or spawning.

B. Wilderness	a. Not applicable.
C. Wildlife and Fish	
1. Planning	a. Emphasize maintenance and protection of fish habitat capability and water quality. Maintain or protect existing stream channel and bank stability, pool condition, and the presence of large woody debris in all stream channels. Where necessary, restore or rehabilitate channels to improve channel and bank stability, pool conditions, and large woody debris.
	b. Retain instream woody material plus standing (live and dead) adjacent to the stream, needed for future debris recruitment, bank and channel stability, and wildlife habitat.
	c. Emphasize planning at a watershed level for habitat and watershed restoration and improvement activities.
	d. Maintain streamside vegetation so that at least 80% of the fish habitat stream surface has shade during the summer low flows. Maintain or restore 75% of other small woody and herbaceous vegetation.
	e. Primary excavator habitat will be managed to 80% of potential population levels. All large dead and down logs will be left except for logs to be used as instrean structures for fish habitat or channel stability.
	f. For T & E species, follow Forest-wide Standards and Guidelines and Management Prescription 16 Standards and Guidelines. Manage wetlands to protect all bogs, swamps, and beaver ponds.
	g. Manage wetlands to protect all bogs, swamps, and beaver ponds.
	h. Consult with local state biologists to assure fish management objectives are compatible with state management objectives.
2. Habitat Improvement	a. Emphasize restoring, rehabilitating and improving degraded or lost spawning and/or rearing habitat for native anadromous and resident trout species. Habitat work in upper channel includes: installation of log-check dams and/or rock dams as energy dissipaters and sediment collectors. Streambank areas will be planted and seeded to help stabilize eroded sections The objective is to maintain and increase sufficient amounts of structure components to provide channel and bank stability.
	b. Habitat work in lower channel areas includes installation of large structures (wood. native rock, or concrete) in the channels to restore or improve spawning and/or rearing habitat quality and quantity. The objective is to re-create pools, or to improve on pool quality, and to increase stream channel and bank stability.

		Other habitat work in the lower channel areas can include improving or enhancing off-channel juvenile salmon and trout habitat by constructing either rearing channels or rearing ponds.
		c. Emphasize measures to improve wildlife habitat diversity and integrity.
		d. Stocking of anadromous fish (adults or juveniles) permitted to help meet production level III requirements. Must be part of the overall restoration plan Stocking of resident fish is permitted to meet potential capability level for resident fish. Stocking activities must be part of overall project work plans.
D. Range		a. Not applicable.
E. Timber		
	1. Timber Management Planning	a. A range of silvicultural treatments will be permitted only when riparian objectives can be accomplished. Timber management intensity H (extended rotation) best meets the riparian values: other timber management intensities A-G which also meet the riparian values may also be considered.
	2. Timber Sale Preparation	a. Yarding and skidding that maintains soil disturbance and vegetation standards are acceptable (see F2 on following page).
		b. Less than 10% of the area should be damaged. A damaged area exists when there is an increase in soil bulk density of 15% or more over the undisturbed level, a macropore space reduction of 50% or more, and/or a reduction below the 15% level as measured by an air permeameter.
F. Water, Soil, and Air		
	1. Planning	a. Meet Forestwide Standards and Guidelines.
	2. Improvements	a. Watershed improvements and maintenance are permitted. Use vegetative restoration methods to restore live root mat and reduce risk of slope failure along stream channels as well as upper slope areas outside the riparian area.
	3. Soil Resource Monitoring	a. Ground disturbing activities will result in no more than 10% mineral soil exposed within a project area. Disturbance should be widely distributed over the area.
		b. Small woody and herbaceous vegetation disturbance limited to 25% and widely distributed over the project area.
G. Minerals and Geology		a. Extraction of common variety minerals may be conducted provided riparian values can be protected.
H. Rural community and Human Resources		a. Encourage use of various human resource programs to be used in accomplishing pre-selected water quality or fish habitat restoration/rehabilitation projects.

J. Lands		
1. Special Use Management	a.	Activity to be analyzed through NEPA process to determine its effect on riparian habitat. Only permitted if riparian habitat diversity and integrity is maintained.
2. Rights-of-way Grants	a.	Meet Forest-wide Standards and Guidelines.
3. FERC License and Permits	a.	Assure consideration and establishment of minimum flows.
4. Land Ownership Planning	a.	Lands critical to riparian management should be placed in a Group III. Federal and non-federal lands involved in land exchanges shall contain equal amounts of mature riparian habitat.
L. Facilities		
1. Transportation System Planning	a.	Roads should avoid riparian areas when possible. Locating roads in a riparian area can only be done if riparian values are protected.
	b.	Necessary crossings should use methods that minimize adverse impacts to water and fisheries resources.
2. Road Construction, Reconstruction and Operation	a.	Road construction/reconstruction activities will be permitted in designated riparian areas only when stated riparian area objectives can be accomplished. Such activities may be restricted to timing and/or access due to fish migration and/or spawning.
	b.	Slopes adjacent to or within riparian areas will be protected with erosion and/or sediment control. Before the first wet season, vegetation or slope protection will be completed. Prior to the end of the normal operating season, final stabilization practices should include vegetation as well as structural.
	c.	Water quality and/or fisheries habitat problems caused by road construction/reconstruction shall be fully mitigated in kind, on site.
	d.	All roads not receiving annual maintenance shall have measures to control road surface and ditch water.
P. Protection		
1. Fire Management Planning	a.	Forest-wide Fire Protection Group D applies.
2. Forest Pest Management	a.	Integrated pest management is permitted except where use of pesticides conflicts with riparian values.

14 DEER AND ELK WINTER RANGE

Goal: Manage winter range to specifically benefit deer and elk in terms of vegetational habitat.

Description of Lands Where Prescription Applicable: This prescription is applied to acres throughout the Forest that are inventoried as deer and elk winter range. Winter range is generally located below 2,200 feet in elevation and contains a mix of successional stages to meet the forage and cover requirements for deer and elk. Optimum habitat is mature and old growth forest. The canopy cover and litter and understory vegetation of an old growth forest provides both the optimal thermal cover plus forage needs for wintering deer and elk. Second growth stands may also provide habitat. These acres include timber stands with a 70 percent or greater canopy closure and provide adequate thermal cover. Forage, however, is limited. Clearcut acres may also provide some food for the needs of deer and elk winter range; forage is available but cover is limited.

Desired Future Condition: To achieve proper forage/cover ratios, timber harvest patterns and unit size will be designed for optimum proportion and arrangement of different successional forest stages, including old growth, second growth stands, and clearcuts and plantations. Management activities will be scheduled to minimize disturbances between December 1 and April 1. Road closures may be implemented to reduce wildlife harassment from recreation or management activities.

Intensities in this Management Prescription: None

Program Element	Standards and Guidelines
A. Recreation	
1. Recreation Planning	a. Concentrated recreational activities are permitted except where direct conflicts with winter range occurs.
	b. Specialized habitats include, but are not limited to, calving and fawning areas, elk wallows, mineral licks, concentration areas, and travel corridors. Existing concentrated recreational activities within these areas should be moved to other areas when they conflict with winter range objectives.
	c. Conflicts between ORV and big game use between the dates of December 1 - April 15 shall be resolved in favor of the latter.
2. Visual Quality	a. Meet a Visual Quality objective of foreground retention and middleground partial retention in primary viewsheds (See Figure 4-1a & 4-1b). Meet a Visual Quality Objective of partial retention in secondary viewshed foregrounds, and modification in secondary viewshed middleground.
3. American Indian Religious and Cultural Use	a. Meet Forest-wide Standards and Guidelines.
B. Wilderness	a. Not applicable
C. Wildlife and Fish	
1. Planning	a. Average open-road density per square mile for a contiguous piece of winter range shall be no more than 2 miles/square mile.
	b. Diversity and juxtaposition of habitat shall consist of forage hiding/thermal cover, and optimal cover (OC). See glossary for definition of habitat types.

c. Range of habitat types is as follows:

Seral Stage	% of Range
1-20 years	10 - l5% forage
21-80/90 years	40 - 45% Thermal/hiding cover
90+ years	37 - 45% Optimal cover

d. As a general rule, maintain above range of habitat types for every 2,000 acres (approx.) of contiguous winter range, but not to exclude areas smaller than 2000 acres.

2. Habitat Improvement

a. Improvement will be emphasized such as desirable forage species planting, fertilization, thinning, and slash disposal.

D. Range

a. Not applicable

E. Timber

1. Timber Management Planning

a. Timber harvest will be scheduled and units designed to provide habitat diversity and integrity for deer and elk.

b. The following priorities for scheduling shall be applied:

(l) In scheduling timber management activities, first consideration shall be to meet optimal thermal cover acreage requirements.

(2) If optimal cover acreage requirements are met, then schedule to meet forage requirements.

(3) If optimal cover acreage requirements cannot be met, hold the oldest available stands to meet future optimal thermal cover requirements, then schedule to meet forage requirements.

c. Any timber management intensity may be applied to meet the optimal cover acreage and forage requirement.

2. Timber Sale Preparation

a. Forage units shall be designed to meet future optimal cover requirements. To achieve this unit design should assure no point is further than 600 feet from cover.

F. Water, Soil, and Air

a. Meet Forest-wide Standards and Guidelines.

G. Minerals and Geology

a. Mineral exploration and extraction will include requirements and mitigation measures needed to protect habitat and winter range objectives.

b. Activities that adversely affect wildlife shall be identified and mitigated.

H. Rural Community and Human Resources

a. Meet Forest-wide Standards and Guidelines.

J.	Lands		
	1. Special Use Management	a.	Construction, maintenance, and operation are permitted, provided it does not adversely affect special habitat and/or winter range.
	2. FERC License and Permits	a.	Same as J-1a above.
	3. Land Ownership Planning	a.	Winter habitat will be placed in Group III classification for acquisition or disposal as needed.
L.	Facilities		
	1. Transportation Systen Planning	a.	Location of new roads shall not adversely impact special habitat areas, including winter range. Road design should be coordinated with a biologist to determine and reduce impacts.
		b.	See C-la on prior page for open road densities.
	2. Road construction and Reconstruction	a.	Road construction and reconstruction shall not he permitted between December 1 - April 15 in identified winter range.
		b.	Road construction and reconstruction shall be timed to reduce harassment in special habitat areas, including winter range. Some exceptions for emergency flood repair.
	3. Road Operation	a.	See above for timing restrictions for maintenance operations. Some exceptions for emergency flood repair.
		b.	Local and collector roads may be closed seasonally or indefinitely, in order to allow an open road density that maintains habitat effectiveness. Unneeded roads will be obliterated or inactivated.
P.	Protection		
	1. Fire Management Planning	a.	Forest-wide Fire Protection Group E3 applies.
	2. Forest Pest Management	a.	Utilize integrated pest management techniques except when use of chemical pesticides conflicts with objectives of managing winter range and specialized habitats.

15 MOUNTAIN GOAT HABITAT

Goal: Protect and manage habitat to maintain or increase mountain goat populations.

Description of Lands Where Prescription Applicable: This prescription is applied to selected acres of current and historical mountain goat habitat. These areas characteristically contain diverse vegetation including mature and old growth stands, steep rocky cliffs, projecting pinnacles, ledges, and talus slides Winter range is generally at lower elevations (tree—line and below) than summer habitat.

Desired Future Condition: Current and historically used mountain goat range is in the process of being identified and verified. The winter range is maintained as a natural environment with little evidence of human activity.

Intensities in this Management prescription:

15A Management Requirement

INTENSITY 15A: MANAGEMENT REQUIREMENT

Program Element	Standards and Guidelines
A. Recreation	
1. Facilities construction and Reconstruction	a. Facilities that maintain the integrity of mountain goat habitat may be allowed.
	b. Use of existing trails and campsites should be discouraged within 1.500 feet of known key habitat features. Key habitat features are defined in the "Description of Lands" for this prescription
2. Visual Quality	a. Visual Quality Objectives consistent with adjacent management areas. The site itself will be managed to show little to no evidence of human impact.
3. American Indian Religious and Cultural Use	a. Meet Forest-wide Standards and Guidelines.
4. Use Administration	a. Existing roads that directly access winter range shall be restricted where harassment to mountain goats has been identified.
	b. Motorized use shall not he allowed on winter range from October 31 — June 15.
B. Wilderness	a. Not applicable.
C. Wildlife & Fish	
1. Planning	a. cooperate with the Washington Department of Wildlife in mountain goat census and refinement of winter range boundaries.

		b. Continue surveys and inventory of known and suspected mountain goat winter range to document critical habitat for protection.
		c. Monitoring shall examine habitat components and use to insure Forest planning objectives are being met.
D. Range		a. Not applicable.
E. Timber		
	1. Timber Management Planning	a. No harvest scheduled. If timber management activities are conducted, practices applied shall be for the primary purpose of maintaining mountain goat winter habitat.
	2. Reforestation and Timber Stand Improvement	a. Reforestation and TSI plans should be designed for improving forage to meet management objectives for mountain goats.
	3. Timber Sale Preparation and Harvest Administration	a. Any limited harvest activity should have restrictions similar to A-4b on previous page.
		b. Timber management activities adjacent to avalanche chutes shall be maintained to meet optimal cover needs in those areas.
F. Water, Soil, and Air		a. Meet Forest-wide Standards and Guidelines.
G. Minerals and Geology		a. Mineral exploration and extraction, including common variety minerals will include requirements and mitigation measures needed to protect habitat and winter range objectives.
		b. Activities that adversely effect goats on the winter range shall be identified and mitigated.
H. Rural community and Human Resources		a. Meet Forest-wide Standards and Guidelines.
J. Land		
	1. FERC Licenses and permits	a. Construction, maintenance, and operation is permitted, provided, it does not alter or adversely impact mountain goat habitat or its effectiveness.
	2. Land Ownership Planning	a. Identified critical habitat within forest boundary will be placed in Group II.
L. Facilities		
	1. Transportation System Planning	a. No new roads permitted which access mountain goat winter habitat.

		b. Existing open-road density should average no more than approximately 2 miles per square mile of contiguous winter range habitat.
	2. Road construction and Reconstruction	a. Reconstruction activities shall be timed to avoid conflict with mountain goat winter habitat use. Activities shall be restricted between December 1 - May 15 (south) and December 1 - June 15 (north).
	3. Road Operation	a. Manage traffic to minimize impact on mountain goat winter range. Consider road closures when conflict or goat harassment has been identified. Use of existing facilities should be discouraged within 1500’ of key habitat features.
P. Protection		
	1. Fire Management Planning	a. Forest-wide Fire Protection Group E1 applies.
	2. Forest Pest Management	a. Utilize integrated pest management techniques except where use of chemical pesticides conflicts with objectives of managing winter range.

16 THREATENED AND ENDANGERED SPECIES

Goal: Manage existing habitat to provide for the long-term needs of Threatened and Endangered species. In addition, identify potential habitat and management to enhance long—term viability of these species Management is consistent with recovery plan objectives.

Description of Lands Where prescription Applicable: This prescription is applied to identified and designated sites and areas to meet recovery needs, and those that may be identified in future through more intensive surveys.

Desired Future Condition: Common to all Intensities.

Existing habitat is managed to provide for the for the long-term needs of the species concerned Management may include vegetative alterations to enhance habitat, depending on species potential habitat is identified and managed to enhance the long—term viability of the species consistent with species recovery objectives and eventual delisting

Intensities in this Management Prescription

16A Northern Bald Eagle
16B Grizzly Bear
16C American Peregrine Falcon
16D Gray Wolf

The standards and guidelines in this prescription identify typical management practices in T & E habitat areas. However, the Forest will consult with USDI Fish and Wildlife Service regarding management activities which may effect a federally listed species' habitat and will develop protection, mitigation and enhancement measures specific to that habitat area. Recovery plans will be implemented and used to guide management activities within Threatened and Endangered species habitat.

INTENSITY 16A: NORTHERN BALD EAGLE

Included as dedicated habitat are one existing and two potential nest sites, 55 identified in the Bald Eagle Working Team Implementation Plan (1989), and six communal roost sites. These sites are not shown on the maps distributed to the public. There are additional acres of existing and potential feeding habitat that are managed for the eagle, but assigned to the Management Areas addressing the Skagit Wild and Scenic River, Riparian and Fisheries Habitat and other MAs with compatible management direction. There is no scheduled timber harvest in the dedicated areas. Some activities are prohibited, others are restricted, either by season or by distance from the nesting or roosting areas.

Program Element	Standards and Guidelines
A. Recreation	
1. Trail Planning	a. New trails will not be located within 1/4 mile of known neat trees or roost areas.
2. Visual Quality	a. Meet a VQO of retention foreground and partial retention middleground from primary viewsheds. Meets a VQO of foreground partial retention and middleground modification from secondary viewsheds.
3. American Indian Religious and Cultural Use	a. Meet Forest-wide Standards and Guidelines.

	4. Facility and Site Construction and Reconstruction	a.	New facilities shall be located at least 1/4 mile from known nests and roosts, except that development of new recreation sites is permitted if recreational use does not occur during the season of bald eagle use.
		b.	Existing developed sites will not be expanded and increased human use will be discouraged when monitoring identifies a potential conflict with bald eagle use.
		c.	Restrict any recreation reconstruction activity within 1/4 mile of a known nest from January 1 — August 31, or roost areas from November 15 — April 1.
		d.	Construction or development projects or reconstruction near the winter use areas should not be conducted between November 15 — April 1.
	5. Use Administration	a.	Dispersed use, such as an occasional solitary hiker, is not a significant conflict. However, more use than the occasional intrusion within 1/4 mile of a nest should be restricted between January 1 — August 31. The same restriction applies to known communal night roosts and feeding areas, but for the period November 15 — April 1.
	6. Trail Construction	a.	Locate new trails and recreation facilities further than 1/4 mile from known nest trees and night roosts.
	7. Trail Reconstruction	a.	Relocate existing trails within 660 feet of known nests to 1/4 mile or more from the nest. If relocation is not possible, restrict trail reconstruction activity from January 1 to August 31.
B.	Wilderness	a.	Not applicable.
C.	Wildlife and Fish		
	1. Threatened, Endangered and Sensitive Species Recovery Effort	a.	There will be no public disclosure of locations of known nest and roost sites.
	2. Habitat Improvement	a	Habitat improvement within 1/4 mile of nest sites will be restricted between January 1 - August 31, and between November 15 - April 1 for roost sites, if it conflicts with eagle use of the area.
D.	Range	a.	Not applicable.
E.	Timber		
	1. Timber Management Planning	a.	There will be no scheduled harvest within 1/4 mile radius, as a minimum, of any known or potential nest site, roosting or staging area. Timber harvest and related activities will be restricted to occurring outside of the habitat use period.

		b. To maintain nesting and winter roost and perch habitat, and to lessen susceptibility to disease, competing vegetation may be controlled or eliminated from immediately around these habitats using biological or silvicultural methods.
F.	Water, Soil, and Air	a. Meet Forest-wide Standards and Guidelines.
		b. If conflict occurs, require air space restrictions for low level aircraft from January 1 to August 31 in the vicinity of nest sites and feeding areas when in use.
G.	Minerals and Geology	a. No surface mining within a minimum of 1/4 mile of known meets, and no mining activity within 1/4 mile of a nest during season of use. No mining activity within 1/4 mile of shorelines used for feeding areas, or within 1/4 mile of known roosting sites, during seasons of bald eagle use.
		b. Mineral activity within 1/4 mile radius from known roosting or nest sites will require protection measures, such as timing restrictions.
H.	Rural community and Human Resources	a. Meet Forest-wide Standards and Guidelines.
J.	Lands	
	1. Special Use Management	a. No development of commercial sites or private homesites, hydroelectric facilities, and power lines within 1/4 mile of known nests or roosting areas.
	2. FERC License and Permits	a. Activities within 1/4 mile of a nest site or roost area may occur only outside the season of habitat use (January 1-August 31 for nest sites, and November 15 - April 1 for roost areas).
	3. Land Ownership Planning	a. Group II - parcels of Forest land containing existing or potential bald eagle habitat will be retained.
L.	Facilities	
	1. Road Construction and Reconstruction	a. Reconstruction and maintenance of existing roads within 1/4 mile of a nest tree or roost area vii). be restricted between January 1 — August 31 for nest areas, and November 15 — April 1 for roost areas, or when these areas are in use. Where possible, relocate existing roads 1/4 mile from nest and roost areas.
		b. No road construction within 1/4 mile of known nests, feeding areas, and core roosting areas.
	3. Road Operation	a Roads within 1/4 mile of nests, in feeding and/or roost areas will have time-of-year restriction on maintenance and use.

P. Protection

1. Fire Management Planning
   a. Protection of bald eagle nesting and roosting habitat from wildfire will be a high priority in determination of appropriate suppression response.
   b. Forest-wide Fire Protection Group A applies.
2. Treatment of Activity Fuels
   a. No fuels treatment within 1/4 mile of known nests between January 1 — August 31 or within 1/4 mile of roost sites between November 15 — April 1.
3. Forest Pest Management
   a. Integrated pest management concepts are permitted only when bald eagle habitat values can be maintained.

INTENSITY 16B: GRIZZLY BEAR

Although sightings of grizzly bears have been reported, no occurrences have been documented by the Washington Department of Wildlife in the on—going Grizzly Bear Population and Occurrence Study. Any grizzly bears found on the Forest will receive full protection under the Endangered Species Act. If the North Cascades Ecosystem is selected as a grizzly recovery area, a recovery plan will be developed which will guide grizzly hear management on the Forest. At the present time, the following standards and guidelines apply:

Program Element	Standards and Guidelines
A. Recreation	
1. Recreation Planning	a. Planning will assure that potential developed or dispersed use will not degrade or compromise important potential grizzly use areas (forage sites, denning areas, or travel routes).
	b. The applicable Standards and Guidelines for Developed Recreation are found in Management Prescription 3A, program element A.
2. Visual Quality	a. Meet Forest-wide Standards and Guidelines.
3. American Indian Religious and Cultural Use	a. Meet Forest-wide Standards and Guidelines.
B. Wilderness	
1. Wilderness Use Administration	a. Assure administration of wilderness use will not degrade or compromise important potential grizzly use areas.
C. Wildlife and Fish	
1. Threatened and Endangered Sensitive Species Recovery Effort	a. Conduct an inventory of the condition of grizzly bear habitat.
	b. Send reports of sightings to coordinator.
D. Range	a. Not applicable.
E. Timber	
1. Timber Management Planning	a. Assure any proposed activity in or near potential grizzly habitat is evaluated for its effect through NEPA analysis.
F. Water, Soil, and Air	a. Same as timber E-1a above.
G. Minerals and Geology	a. Same as timber E-1a above.
H. Rural Community and Human Resources	a. Meet Forest-wide Standards and Guidelines.

J. Lands

1. Special Use Management
   a. Dame as timber E-1a above.

2. Land Ownership Planning
   a. Group II - retain or acquire.

L. Facilities

1. Transportation System Planning
   a. Same as timber E-1a above.

P. Protection

1. Fire Management Planning
   a. If habitat quality is substantiated, managed burning may be appropriate.
   b. Forest-wide Fire Protection Group D applies.

2. Forest Pest Management
   a. Not applicable.

INTENSITY 16C: AMERICAN PEREGRINE FALCON

There are no specific standards or guidelines for this species because no use or recovery plan sites have been identified. Habitat for peregrine falcon will be inventoried. Suitable standards and guidelines will be developed and implemented if use areas are identified.

Meet Forest-wide Standards and Guidelines, Section VI. Threatened, Endangered, and Sensitive Species for general direction if American peregrine falcon nesting and use is discovered.

INTENSITY 16D: GRAY WOLF

There are no specific standards or guidelines for this species because no use or recovery plan sites have been identified.

Meet Forest-wide Standards and Guidelines. Threatened, Endangered, and Sensitive Species direction if gray wolf use is discovered.

17 TIMBER MANAGEMENT EMPHASIS Goal: provide for the production of timber.

Description of Lands Where Prescription Applicable: This prescription may be applied to any suitable forest acres. Approximate acres suitable for timber production in each timber productivity type are: Principal Douglas-fir North 271,575 acres; Principal Douglas-fir South 128,900 acres, Upper True fir North 92,515, and Upper True fir South 111,810 acres. Timber productivity for these types as expressed by the average King site index at age 50 years (King 1966) are 95, 79, 73 and 70 respectively. The intensity selected for any suitable acre will be determined at the project-level environmental (NHPA) analysis.

Desired Future Condition: Common to all Intensities.

Areas allocated to this strategy will take on the appearance of intensively managed timber lands, typified by even ages of stands, relatively even spacing of trees, well developed crown ratios, and low levels of mortality. Clearcuts are common; they may borrow form, line, and texture from the characteristics of the surrounding landscape, but management activities will generally be dominant. Access will generally be by road.

Intensities in this Management Prescription:

17A Natural Regeneration — Final Harvest: Natural reforestation is supplemented by planting to meet Forest minimum stocking standards. This is a minimum investment intensity.

17B Natural Regeneration — Precommercial Thinning — Final Harvest: Reforestation is natural, supplemented by planting to meet Forest minimum stocking standards. Precommercial thinning is planned. Release, growing stock protection measures, and fertilization may be prescribed. This intensity nay be applied to existing reforestation condition classes. There are no location or species constraints.

17C Plant — Final Harvest: Reforestation is by planting. Release and growing stock protective practices may be prescribed

17D Plant — Final Harvest — Genetic Stock: Reforestation is by planting, using genetically improved stock when available. Release and growing stock protective practices may be prescribed.

17H Plant — Commercial Thin (1) — Final Harvest — Genetic Stock Reforestation is by planting, using genetically improved stock when available. Release, growing stock protection measures, and fertilization nay be prescribed Commercial thinning harvest is planned 10 to 20 years before regeneration (final) harvest MA liE may be applied to stands that have not been precommercielly thinned, commercial thinning permitted in timber stands accessible by road, in which SOt of the trees are Douglas-fir.

17F Plant — Precommercial Thin — Final Harvest — Genetic Stock: Reforestation is by planting using genetically improved stock when available. Precommercial thinning planned. Release, growing stock protection measures, and fertilization nay be prescribed. This intensity may be applied to existing reforestation condition classes. There are no location or species constraints.

17G Plant — Precommercial Thin — Commercial Thin (1) — Final Harvest — Genetic Stock: This intensity is designed to obtain the maximum timber production possible while meeting the Forest-wide and Management Area Standards and Guidelines. Every applicable approved practice should be used to increase production. Reforestation is by planting, using genetically improved stock when available. Precommercial thinning is planned; commercial thinning is permitted, as in 17E. This intensity may be applied to existing reforestation condition classes. Maximum rotation length is at the age volume production is equivalent to 100% culmination of mean annual increment (see Glossary).

17W Plant — Precommercial Thin — Commercial Thin (3) — Final Harvest — Genetic Stock —Extended Rotation: This intensity is designed to produce and maintain a portion of managed stands with a good range of large to very large

trees, to meet visual quality requirements or other resource objectives. The basic rotation length is 200 years, with three intermediate thinning harvests; however, different rotation lengths may be prescribed. Reforestation is by planting. Precommercial and commercial thinning at 30 year intervals are planned. Release, growing stock protection practices, fertilization, or planting genetic stock nay be prescribed. This intensity may be applied to existing reforestation condition classes.

The first two intensities (A, B) are applicable only to the upper slope type of true fir-western hemlock while intensities C through H are available to the principal forest type where Douglas-fir is the preferred tree species. Intensity C is applicable to the mixed conifer hardwood types where hardwood species will be planted.

Timber management intensities A through H have the same Standards and Guidelines for each program element except where noted.

Program Element	Intensity	Standards and Guidelines
A. Recreation		
1. Visual Quality	All	a. Unit design will meet at least the Visual Quality objective of Maximum Modification while still meeting the objective of this Management Prescription.
	All	b. Within a trail foreground, manage to meet a visual Quality Objective of at least modification.
2. American Indian Religious and Cultural Use	All	a. Meet Forest-wide Standards and Guidelines
3. Facility Site Planning	All	a. Developed recreation sites will be allocated to and managed under direction contained in Management Area 3A.
4. Use Administration	All	a. Recreation opportunities will generally be in Roaded Natural and Roaded Modified ROS classes.
	All	b. ORV use as provided in Forest-Wide Standards and Guidelines.
	All	c. Roaded and non-roaded dispersed recreation are permitted.
5. Trails	All	a. Trails interrupted by logging or road construction shall he restored, or substitute trails provided so that the mileage of trails in the same general location is not diminished. Trails will be kept open and clear directions for users provided during interrupting activities.
	All	b. New trail location shall be permitted provided that it does not conflict with the long-term timber objectives.
B. Wilderness	All	a. Not applicable.
C. Wildlife and Fish		
1. Planning	All	a. Meet Forest-wide Standards and Guidelines for maintenance of wildlife habitat.

2. Habitat Improvement	All	a.	Enhancement of habitat may be permitted provided that full timber management objectives are met.
3. Threatened, Endangered, and Sensitive Species	All	a.	Meet Forest-wide Standards and Guidelines.
D. Range	All	a.	Range use may be permitted to accomplish specific silvicultural objectives.
	All	b.	Other range use may be permitted provided that timber production is not impaired.
H. Timber			
1. Timber Management Planning and Inventories	All	a.	The full range of activities are included which are necessary to develop and prepare the timber resource portion of the forest land and resource management plan, (including inventory, data analysis, rotation determination, harvest schedule development, EIS preparation. etc.) plus maintenance of the completed plan and control records.
2. Regeneration Harvest	All	a.	Final harvest method determined as stipulated in E. 6a below.
3. Intermediate Harvest	A—D, F	a.	Sanitation (salvage) cuts are permitted.
	E, G, H	a.	Thinning and sanitation (salvage) cuts are permitted.
4. Commercial Thinning Harvest	H.G.H	a.	Candidate stand should not be past Culmination of Mean Annual Increment (CMAI).
	E, G, H	b.	Individual trees will have crown ratios meeting or exceeding those prescribed in FSH 2409 28d (Silvicultural Hxamination and Prescription Handbook) for a commercial thin before management activity may occur.
	E, G, H	c.	Stand is expected to show a growth response to treatment.
	E, G, H	d.	Management activity should lessen susceptibility to infectious disease, e.g. stem and/or root rots.
	E, G, H		1. Harvest activities will be such as to limit damage to residual stands.
	E, G, H		2. Treat freshly cut whitewood stumps above ten inches in diameter, with disease retarding agents, e.g. Borax.
	H, G, H	e.	In whitewood (True firs and hemlock) stands give priority to wetter plant associations for commercial thinnings.

		H, G, H	f.	Economic efficiency analysis shall be completed before the decision is made to use Commercial Thinning.
5.	Salvage Harvest	All	a.	Permitted.
6.	Silvicultural Examination and Prescription	All	a.	Prior to any silvicultural activity, a silvicultural examination and prescription will be made.
7.	Post Treatment Examination and Validation	All	a.	A post-treatment examination and validation of the prescribed treatment will be made to insure that minimum prescribed standards are met.
8.	Activity Review and Evaluation	All	a.	Reviews of silvicultural activities that are “in progress” or “recently completed” will be conducted to provide feedback to silviculturalists for the purpose of improving the quality of prescriptions.
9.	Reforestation	A, B	a.	Residual seedlings and natural seeding will be utilized. Planting may be used to insure adequate reforestation. Genetically improved stock will not normally be planted.
		C—F, M	a.	Residual seedlings and natural seeding will be utilized. Planting may be used to insure adequate reforestation Genetically improved stock will be planted when available.
		G	a.	Residual seedlings may be utilized and natural seedling may also occur. Planting may be used to insure adequate reforestation. Genetically improved stock will be planted when available.
10.	Site Preparation for Planting and for Natural Regeneration	All	a.	Removal and utilization will be the preferred method for treating residual material for site preparation and hazard reduction. The NEPA analysis for a planned regeneration harvest should address both utilization standards and length/diameter specifications for “Piling of Unutilized Material” to provide for maximum removal under the sale contract.
		All	b.	Utilize as many viable residual seedlings as practical in the Pacific silver fir zone. Viable naturals retained should be undamaged, be of the prescribed species and size, and have a crown ratio of at least 0.3.
		All	c.	All site preparation methods that do not cause degradation of water and soil productivity are permitted. The selected method shall be based on a site-specific analysis.

11. Planting and Replanting	All	a.	A “pre-planting” survey will be conducted to determine site preparation needs as wall as recording stockability relative to the prescription Planting will follow prescriptions and Sale Area Improvement (SAI) Plans.
	All	b.	A minimum stocking of 190 well-spaced seedlings per acre should be alive and growing during the first growing season following reforestation. A post—treatment examination will be made at the end of the first growing season.
12. Certification of Planted, Seeded Natural Regeneration	All	a.	Before an area of deforested land may be certified as satisfactorily stocked. the reestablished tree seedlings must have survived and be thriving after three or more full growing seasons.
13. Animal control for Reforestation and Timber Stand Improvement	All	a.	Conduct activities necessary to maintain the stocking level prescribed for the site. Coordinate method selection and activity with appropriate State and Federal agencies, and adjacent land owners.
14. Timber Stand Improvement	All	a.	Permitted activities should provide for salvage rights of wood residue in service contracts.
15. Release and Weeding	B, F—H	a.	Use of mechanical, chemical, or manual methods to maintain the stocking level of desirable trees are permitted.
16. Precommercial Thinning	B, F—H	a.	Either killing or felling of excess trees are permitted. Salvage of this excess growing stock is encouraged whenever a market exists and damage to the remaining trees would not be significant.
17. Fertilization	B, F—H	a.	Fertilization may be prescribed for stands composed of 70% or more Douglas-fir growing on previously identified soil types (Snoqualmie SRI 10, 12 & 13 and Mt. Baker SRI 12, 13, 24, 25, & 26) or other soil types which show positive response to fertilization. Potential fertilization gains are based on Nitrogen Fertilization Trials on Mt. Baker-Snoqualmie National Forest (PNW Cooperative Research Project).
	B, F—H	b.	May be prescribed for stands of different species composition in different soils if found responsive through research studies.
18. Certification of Timber Stand Improvement	All	a.	Examine completed treatment and prepare written certification that the treatment meets prescription objectives.
	All	b.	Take appropriate follow-up action if treatment does not meet the prescription.

19. Timber Sale Preparation	All	a.	Activities necessary for the preparation of sawtimber, roundwood and miscellaneous forest product sales (except firewood) are included.
		b.	Begin NEPA analysis, start scoping.
20. Position Statement Development	All	a.	Staff specialists conduct an extensive review to obtain information for decision on whether to prepare a sale. A positive decision adds a sale project to the Forest Timber Sale program. The statement documents the scoping process and includes a work plan scheduling specific activities.
	All	b.	Development of Position Statements is a continuing activity as sales must be planned several years ahead of projected sale date.
21. Sale Area Design	All	a.	Conduct an intensive interdisciplinary field investigation within and adjacent to the sale project area.
	All	b.	Complete NEPA analysis.
22. Sale Plan Implementation	All	a.	Implement all phases of the sale plan and prepare the timber sale report, incorporating the direction of the NEPA decision document.
23. Final Sale Package Preparation Appraisal and Offering, Bid Opening, and Sale Award	All	a.	Follow current Forest Service Manual directions to prepare the final sale package, offer, accept bids, and award sale.
24. Timber Harvest Administration	All	a.	Administer timber harvest for compliance with the provisions of timber sale contracts or permits.
25. Post Sale Measurements	All	a.	conduct all activities necessary including check scaling, log/load accountability, and utilization scales to insure accuracy of timber volume/quantity and value for payment purposes.
26. Financial Management	All	a.	Perform all project work involved with timber sale financial requirements.
27. Sale Area Administration	All	a.	Day-to-day, on-the-ground inspections will preferably be conducted by certified Sale Administrators Specific Standards and Guidelines are found in FSH 2409.23 — Timber Sale Administration Handbook
28. Non-recurring Contractual Work	All	a.	Take timely appropriate action to complete un-scheduled project work associated with timber sale contract administration such as contract modifications, contract term extensions, breach, unauthorized cutting, etc.

29.	Administration. Execution and Supervision of Cooperative Work	All	a. Require the purchaser to perform all possible work which is involved with his timber sale contract. Entering a cooperative agreement to perform the purchaser's work should be avoided for most projects, cooperative road maintenance is often an exception.
		All	b. Conduct all project work involved with purchaser cooperative agreements. Knudsen-Vandenberg (KV) and BD accounts are excluded.
30.	Export and Substitution Control	All	a. Administer export and substitution control regulations. Make timely and appropriate reports on violations.
31.	Cost Collection	All	a. Participate in data collection, mill studies, to update Appraisal Handbook. Specific needs are coordinated by the Regional Director of Timber Management.
32.	Commercial Fuelwood Sale, Preparation/Administration and Personal Use Fuelwood Sale/ Administration	All	a. Wherever feasible prepare, offer, sell, and administer the sale of unutilized wood created from regeneration and thinning harvest units. Refer to Standards and Guidelines 20 and 25 for general guidance in this process.
		All	b. Encourage relogging of regeneration harvest units if adequate volume of unutilized wood is present and reforestation requirements and other resource protection can be maintained.
		All	c. Consider hauling PUM (Piling of Unutilized Material) to locations that will facilitate better utilization. Also seek prospective purchasers who could chip PUM at the sale site.
		All	d. Maintain roads, weather conditions permitting, to allow access to unutilized wood residue concentrations for fuelwood or fiber sales.
33.	Free Convertible Products Preparation and Administration	All	a. Consult current budget appropriation direction and Forest Service Manual for specific Standards and Guidelines in issuing free use permits. Generally, convertible wood products, except fuelwood in some cases, are sold by commercial sale because of the value and demand.
34.	Nonconvertible Products Free & For Sale Preparation and Administration	All	a. Follow Current FS Manual on free use and sale of non-convertible products.
35.	Nursery Management	All	a. Not applicable.
36.	Cone Collection	All	a. Follow the Forest's Ten Year Seed Collection Plan for cone quantities by elevation, seed zone, and species for family selection.

31. Seed Extraction	All	a,	Not applicable.
38. Seed Certification & Storage	All	a.	All seed collected will be certified to minimum standards of SIA.
39. Genetic Forest Tree Improvement Program			
(1) Tree Selection and Maintenance	All	a.	Tree Selection based on superior growth, form and disease resistance.
(2) Seed Collection from Selected Trees	All	a.	Collect seed from selected trees to use in reforestation and seed orchard establishment.
(3) Genetic Evaluation Plantations	All	a.	Establish test plantations with seedlings seedlings from selected trees in order to evaluate parents by comparing the performance of their offspring For Douglas-fir and noble fir only.
(4) Seed Orchards	All	a.	Establish seed orchards using scion or seed collected from selected trees to produce seed for reforestation.
F. Water, Soil, and Air			
1. Planning	All	a.	Meet Forest-wide Standards and Guidelines.
2. Soil Resource Inventory Updating	All	a.	Continue to update. sonitor and record status of unsuitable forest lands classified S-8 soils.
G. Minerals & Geology	All	a.	Meet Forest-wide Standards and Guidelines.
H. Rural Community and Human Resources	All	a.	Meet Forest-wide Standards and Guidelines.
J. Lands			
1. Special Use Management	All	a.	Discourage permits which would reduce timber production.
2. Rights-of-way Grants	All	a.	Meet Forest-wide Standards and Guidelines.
3. Land Ownership Planning	A—F	a.	Group III. available for land exchange.
	G, H	a.	Group III, available for land exchange provided approximately equal acreage of like lands are acquired.
L. Facilities			
1. Transportation System Planning and Road Preconstruction, Construction Reconstruction and Operations	All	a.	Meet Forest-wide Standards and Guidelines.
	H	b.	Location of roads should minimize impacts on dedicated or sensitive lands where practicable; i.e. wilderness, NRA's, RNA's. semi-primitive dispersed recreation.

P. Protection

1. Fire Management Planning	All	a.	Fire Management Direction Old Growth Stands - Group E (1); Second Growth Stands — Group E (2); Harvest Areas. Pre-reforestation Certification — Group E (3).
2. Treatment of Activity Fuels Also termed Slash disposal Fire hazard reduction Wood residue treatment	All	a.	Permitted methods are burning, rearrangement, and removal. Removal by utilization is the preferred treatment, and should be used wherever feasible. Utilization must be considered as a post-activity treatment option.
3. Disposal of Activity Fuels by Burning	All	a.	Broadcast burning, piling and burning, or burning landing concentrations may be prescribed.
4. Rearrangement of Activity Fuels	All	a.	Any rearrangement to meet prescribed standards of fire hazard reduction may be used. Two such methods of treatment are chipping and PUM (Piling of unutilized material).
5. Removal of Activity Fuels	All	a.	Hauling activity fuels to good locations for subsequent utilization it permitted. PUM and hauled activity fuels should be utilized by commercial wood fiber, commercial fuelwood, or personal use fuelwood sales whenever feasible.
	All	b.	Maintain roads to allow access to wood residue concentrations for fuelwood, or fiber sales, weather conditions permitting.
	All	c.	Encourage relogging of regeneration harvest units if adequate volume of fiber is present and reforestation requirements and other resource protection can be maintained.
	B, F G, H	d.	Include a provision for wood residue salvage rights for all trees cut in pre-commercial thinning contracts.
6. Forest Pest Management	All	a.	Meet Forest-wide Standards and Guidelines.

18 RESEARCH NATURAL AREAS	Goal	Preservation of naturally occurring physical and biological units where natural conditions are maintained insofar as possible for the purpose of: 1) comparison with those lands altered by management; 2) education and research on plant and animal communities; and 3) preservation of gene pools for typical as well as threatened and endangered plants and animals.

Description of Lands Where Prescription Applicable: Existing RNA - North Fork Nooksack River — 1.407 acres established in 1934. Principal features include Douglas-fir and western hemlock forests. Lake Twenty-two — 790 acres established in 1947. Principal features include north slope western redcedar and western hemlock forests and a subalpine lake. Long Creek — 640 acres established in 1947. Principal feature includes a south-slope western hemlock forest and climax red alder forest. Potential RNA — Perry Creek - Approximately 2,000 acres. Principal features include a unique assemblage of rare fern species and Alaska cedar in a stand with mountain hemlock and subalpine fir, and a heather-huckleberry community. Green Mountain - Approximately 2,000 acres. Principal features include a subalpine parklike mosaic, heather-huckleberry communities, and subalpine lush herbaceous communities. Chowder Ridge —Approximately 1,900 acres. Principal features include an alpine community mosaic with Krummholz tree groups. North Fork Nooksack Addition - Approximately 2,500 acres. Principal features include a 75 year old burn in Douglas-fir along with a wide array of subalpine meadow communities. Lily Lake - Approximately 800 acres. Principal features include high elevation mountain hemlock - Pacific silver fir forest. Lake is typical of mid to high elevation subalpine lakes.

Desired Future Condition: Preservation of naturally occurring physical and biological processes without undue human intervention, as a source for gene pools and for education and research on plant and animal communities.

Intensities in this Management Prescription: None

Program Element	Standards and Guidelines
A. Recreation	
1. Use and Administration	a. Recreation activities and use within RNA's shall not be encouraged. If necessary to prevent damage, permits or closures may be instituted.
	b. Overnight camping and the use of fires shall be discouraged. Such use may be prohibited where it interferes with the preservation of naturally occurring biological or physical conditions.
	c. Discourage all recreation use within 200 feet of streams, lakes and ponds except for use on system trails.
	d. Prohibit all recreation pack and saddle stock.
	e. All recreation summer and winter ORV use is prohibited.
	f. Hunting and trapping shall not be encouraged.
2. Visual Quality	a. Visual Quality Objective of preservation shall be maintained.

3.	Archaeological and Historical Properties	a. Meet Forest-wide Standards and Guidelines.
4.	American Indian Religious and Cultural Use	a. Manage identified and potential cultural resource sites to protect sites and preserve values.
		b. Prohibit interpretation rehabilitation or restoration of historical or archaeological sites within RNA. Relocate if possible to rehabilitate or interpret. Relocation shall include a restoration plan for the RNA.
		c. Stabilize and preserve Green Mountain Lookout. Accept non-conforming structures.
5.	Interpretive and Public Use Administration	a. Education will generally be directed toward the graduate level, but may be approved for advanced undergraduate or interested groups.
		b. Prohibit on-site interpretation or demonstrative facilities.
		c. Criteria for education use shall be: 1) minimum influence on natural character of RNA, 2) minimum influence on existing research activities, 3) size, frequency and intensity of group use, and 4) provisions for supervising and controlling group activities.
		d. Publicity that would attract the general public to the area shall be avoided.
		e. Information on location and resources of the RNA shall be made available to responsible scientific and educational parties.
		f. Signs or references on maps should be discouraged except to protect the RNA.
		g. Discourage publicity of special features within RNA's.
6.	Trail System Maintenance and Operation	a. Existing trails will be allowed to remain. Minor rerouting or upgrading shall be allowed provided it does not compromise the purpose of the RNA.
		b. New trails will not normally be constructed unless it is needed for research purposes or can be shown to conform to the purpose of the RNA and compliment its management objectives.

B. Wilderness		
1. Wilderness Use Administration	a.	For those RNAs, or portions thereof, that fall within designated Wilderness areas, no mechanized equipment will be allowed.
C. Wildlife and Fish		
1. Planning	a.	Prohibit introduction of exotic plant and animal species.
	b.	Reintroduction of former native species may be permitted with Regional Forester approval and with concurrence of PNW Station Director.
	c.	Species of special interest may be managed within RNA according to standards and guidelines for those species except that management shall not violate the integrity of the RNA.
	d.	Control of excessive animal populations may be considered where such populations threaten the RNA integrity. Control measures are subject to Regional Forester and PNW Station Director approval.
	e.	Habitat improvement is prohibited.
	f.	Fish stocking shall be prohibited, except as provided under C-1b above
D. Range	a.	Grazing of domestic livestock is prohibited.
H. Timber		
1. Timber Management Planning	a.	Scheduled timber harvest is prohibited.
	b.	Logging may be permitted following fire, windthrow, insect attack, or disease which may threaten the RNA or threaten values adjacent to the RNA. This is subject to approval of the Regional Forester and PNW Station Director.
2. Reforestation	a.	Natural regeneration following fire, windthrow, insect attack, or disease is the preferred reforestation method.
	b.	Prohibit firewood cutting.
3. Timber Management Research	a.	All research proposals shall be subject to approval by the PNW Station Director and any applicable permits obtained from the appropriate National Forest System line officer.
	b.	Research should be limited to non-consumptive, Non-destructive and essentially observational activities. Some collecting of soil, plants, or animal specimens nay be permitted on a case-by-case basis.

		c. Research will be conducted only by qualified individuals or groups.
F. Water, Soil, and Air		a. Meet Forest-wide Standards and Guidelines.
G. Minerals and Geology		a. RNAs shall be recommended for withdrawal from mineral entry.
H. Rural Community and Human Resources		a. Meet Forest-wide Standards and Guidelines.
J. Lands		
	1. Special Use Management	a. Minimal, temporary or semi-permanent research facilities and installations may be approved under permit. Approval is required through the PNW Station Director and coordinated with the Forest Supervisor.
	2. Rights-of-way Grants	a. Rights-of-way easements including utility corridors existing before RNA establishment shall be honored, but upgrading of existing ones shall be discouraged.
		b. No longer needed rights-of-way shall be restored to their natural surrounding conditions.
		c. Proposals for new rights-of-way shall require Regional Forester recommendation and Chief of Forest Service approval.
		d. Roads shall be discouraged as RNA boundaries
	3. FERC License and Permits	a. Recommend against FERC licenses or permits.
	4. Land Ownership Planning	a. All lands will be placed in Group II — retain or acquire.
L. Facilities		
	1. Transportation System Planning	a. New trail or road construction or reconstruction should not normally take place unless it is aimed at preserving or enhancing RNA values.
		b. Hazard tree felling is permitted along boundary trails or roads for safety. Felled trees shall remain in place unless lying across trail or road. Trees should not normally be hauled out or used for trail improvements
	2. FA&O Facility Maintenance and Reconstruction	a. Prohibit buildings or other facilities. Allow existing facilities to deteriorate without replacement.
P. Protection		
	1. Fire Management Planning	a. Managed fire may be considered to perpetuate the sere and thus the cell that the RNA is meant to represent.
		b. If fire is used to manage a sere. it should mimic a natural fire, but with prudent measures to avoid catastrophe.

		c. Prescribed burn plans shall be subject to approval by the PNW Station Director and Regional Forester.
		d. Naturally occurring or accidental human-caused fire shall be extinguished at the smallest practical acreages unless it meets strict guidelines of a management prescription to maintain the RNA objectives.
		e. Ground disturbing activity to suppress fire such as fire breaks with bulldozers shall be avoided if possible.
		f. Fire retardants shall be avoided if possible.
2.	Fuel Management Inventory	a. Fuels normally should be allowed to accumulate at natural rates unless they threaten adjacent values or the existence of the RNA.
3.	Forest Pest Management	a. No action will be taken against insects or diseases unless the outbreak threatens adjacent resources or would drastically alter the natural ecological processes within the RNA. If action is proposed, it shall be subject to approval of the PHW Station Director and Regional Forester.

19 MOUNTAIN HEMLOCK ZONE

Goal: Determine what portion of the mountain hemlock plant associations are tentatively suitable forest land.

Description of Lands Where Prescription Applicable: These lands are located on the Skykomish, Darrington, and Mt. Baker Ranger Districts and are identified as Mtn. Hemlock plant associations, described in "Preliminary Plant Associations and Habitat Types for the Mt. Baker-Snoqualmie National Forest" by Henderson and Peter (1983, 1984, 1985). The delineation of these habitat types on maps were drawn for modeling purposes. Actual on-the-ground verification will be made by a certified silviculturist as part of project environmental analysis in adjacent management areas.

These lands are normally characterized by heavy snowfall accumulations and a very short growing season. These forest lands have been classified as "not suited" for timber production because existing knowledge, research, and experience does not provide reasonable assurance of reforestation success within 5 years after final harvest (36 CFR 219 14(c) (3)).

Desired Future Condition: This prescription is included so that a study plan may be implemented to test various silvicultural practices which will address the reforestation question. The study plan is "A Study Plan for the Determination of Suitability for the Mountain Hemlock Zone on the Mt. Baker-Snoqualmie National Forest." The implementation of the Study Plan will require various types of timber removal. These activities will give the appearance of intensively managed lands, typified by even ages of stands. They may or may not reflect relatively even spacing of trees and well developed crown ratios. Silvicultural treatments may borrow form, line, and texture from the characteristics of the surrounding landscape, but study activities may be dominant. For this study, up to approximately 250 acres may be harvested, in 25 plots of approximately equal size. These cut areas will represent a structured "study" design and will be distributed on the three districts mentioned.

Intensities in Management Area 19: None

Program Element	Standards and Guidelines
A. Recreation	
1. Visual Quality	a. Visual Quality Objective ranges from retention to modification.
2. American Indian Religious and Cultural Use	a. Meet Forest-wide Standards and Guidelines.
3. Facility and Site Management	a. No developed recreation sites permitted in Study plots.
4. Use Administration	a. No ORV use is permitted in the study plots. Study plots will be located to avoid known ORV travelways.
	b. A full range of recreation activities is permitted if use does not interfere with the prescription goal.
5. Trail System Maintenance and Operation Reconstruction	a. Maintain existing trails. Replace or relocate trails disrupted by roads or study plan activities.
	b. New trail location may be permitted, provided it does not conflict with long-term study objectives.
B. Wilderness	a. Not applicable.
C. Wildlife and Fish	
1. Habitat Improvement	a. Improvement of habitat may be permitted if consistent with the Study Plan.

2. Threatened, Endangered, and Sensitive Plants	a.	Meet Forest-wide Standards and Guidelines.
D. Range	a.	No domestic livestock grazing in Study Plots.
E. Timber		
1. Timber Management Planning	a.	Limit timber management activities to those needed to carry out the Study Plan. Volume harvested in this Study will not contribute to ASQ.
	b.	Varying combinations of silvicultural regeneration systems nay be used, such as: — Harvest, clearcut even-aged regeneration method; — Strip clearcut/strip shelterwood even-aged regeneration method; — Shelterwood even-aged regeneration method.
2. Silvicultural Examinations and Prescriptions	a.	Guided by the Study Plan, specialists will select probable Study unit locations. As part of the Study unit selection process, and prior to any silvicultural activity, an intensive silvicultural stand examination will be made in probable Study unit locations. Analysis of stand examinations will aid in selecting planned Study units.
	b.	A silvicultural prescription for each Study unit will be approved by a certified silviculturist.
	c.	Other management practices NOT to be applied under this Study are: — Broadcast burning; — Genetic tree improvement; — Precommercial thinning; — Salvage harvest. — Fertilization.
3. Post Treatment Examination end Validation	a.	A minimum of three post-treatment examinations will be made at first, third, and fifth year intervals.
4. Timber Sale Preparation and Timber Harvest Administration	a.	Each of the 25 units will have regeneration cut.
	b.	Unit design, location, etc. will follow the Study Plan.
	c.	Additional standards and guidelines for timber sale preparation and administration are located under Management prescription 17.
5. Reforestation	a.	Each unit will be reforested by either natural or artificial seams as indicated in the Study Plan.
F. Water, Soil, and Air		
1. Planning	a.	Meet Forest-wide Standards end Guidelines.

	2. Soil Resource Inventory Updating	a.	Continue to update, monitor, and record S-8 soils
G. Minerals & Geology		a.	Meet Forest-wide Standards and Guidelines.
H. Rural Community and Human Resources		a.	Meet Forest-wide Standards and Guidelines.
J. Lands			
	1. Special Uses Management	a.	Discourage permits which would interfere with Study plots.
	2. Rights-of-Way Grants	a.	Meet Forest-wide Standards and Guidelines.
	3. Land Ownership Planning	a.	Group III, available for land exchange, except Study plots, which are Group II.
L. Facilities			
	1. Transportation Planning	a.	Meet Forest-wide Standards and Guidelines.
	2. Road Preconstruction, Arterial, Collector, Local Bridge & Culvert, Timber Purchaser	a.	Meet Forest-wide Standards and Guidelines.
	3. Construction Engineering, Arterial, Collector, Local Bridge & Culvert, Timber Purchaser	a.	Meet Forest-wide Standards and Guidelines.
	4. Road Reconstruction, Arterial, Collector, Local Bridge & Culvert, Timber Purchaser	a.	Meet Forest-wide Standards and Guidelines.
	5. Road Construction. Arterial, Collector. Local, Bridge & Culvert, Timber Purchaser	a.	No system roads will be constructed. Temporary roads are permissible to meet Study Plan objectives or to access adjacent management areas.
	6. Road Operation	a.	Meet Forest-wide Standards and Objectives.
P. Protection			
	1. Fire Management Planning	a.	Forest-wide Fire Protection Group S (1) will apply with the exception of the use of prescribed fire.
	2. Treatment of Activity Fuels	a.	Emphasize residue utilization for hazard reduction.
		b.	Treatment of fuels by prescribed burning is not permitted
	3. Forest Pest Management	a.	Meet Forest-wide Standards and Guidelines.

20	CEDAR RIVER MUNICIPAL WATERSHED (CITY OF SEATTLE)	Goal:	Provide raw water at a level of quality and quantity, with treatment by the purveyor, which will result in a satisfactory and safe water supply. Production of timber products is allowed to the extent that the water quality goal is met. There is varying emphasis on other uses.

Description of Lands Where Prescription Applicable: The Watershed is comprised of private, municipal and National Forest lands totaling 90,495 acres in King County. This strategy applies to National Forest lands within the watershed not allocated to other Management Areas. National Forest lands are intermingled with City of Seattle end private lands in a checkerboard ownership pattern in the eastern portion of the watershed.

City of Seattle and private lands within the watershed are closed to the public. All National Forest lands in the watershed are open to public use. However, because the Forest Service does not own public rights on the roads, the public has no road access to interior National Forest parcels.

A spotted owl habitat area has been provided for in the eastern portion of the watershed. Management Area 11 standards and guidelines will apply to these lands.

Intensities in this Management Prescription:

20D: Negotiate a new Cooperative Agreement.

Desired Future Condition: The desired future condition for the watershed has been based on the 1962 Cooperative Agreement between the City of Seattle and the Forest Service. The management goals of that agreement for City owned lands have recently been modified by the City of Seattle's Secondary Use Policies. As new findings on wildlife protection needs become known, changes in the management direction for National Forest lands in the watershed are likely to occur as well.

The Forest Service will initiate negotiations on a mew Cooperative Agreement between the City of Seattle and the Forest to reestablish goals and objectives for management of the watershed. Until a new agreement is negotiated, the Forest Service will not enter into new land exchanges affecting National Forest lands within the watershed. Pending a mew agreement, the 1962 Cooperative Agreement will remain in effect. When a new agreement is reached, the Forest Plan will be amended to incorporate its goals and direction.

Program Element		Standards and Guidelines	
A.	Recreation		
	1. Visual Quality	a.	Visual Quality Objective is maximum modification except for areas seen from the Pacific crest National Scenic Trail where the standard will be retention foreground.
	2. American Indian Religious and Cultural Use	a.	Meet Forest-wide Standards and Guidelines.
	3. Facility Construction, Reconstruction, and Management	a.	No existing or planned developed recreation sites.
	4. Use Administration	a.	Dispersed use is permitted unless otherwise restricted, but is not encouraged.

5. Trails Planning	a.	Use of the Pacific Crest National Scenic Trail (PCNST) in the far eastern part of the watershed will be allowed to continue. No relocation is planned.
	b.	No new trails are planned.
B. Wilderness	a.	Not applicable.
C. Wildlife and Fish		
1. Planning	a.	A spotted owl habitat area is designated in the watershed to fit into the Forest-wide network. MA 11 standards and guidelines will be applied in these areas.
2. Threatened and Endangered Species	a.	Meet Forest-wide Standards and Guidelines.
D. Range	a.	Not applicable.
E. Timber		
1. Timber Management Planning	a.	Timber Management Prescription 17, program element E is applicable. Intensities A, C, D are applicable.
F. Water, Soil, and Air		
1. Soil Resource Inventory	a.	Continue to update, monitor and record S-8 classified soils. Maintain inventory of areas in the TRI/GIS system.
2. Planning	a.	Use soil information when locating roads and harvest units.
3. Improvement	a.	Emphasize maintenance and improvement of water quality over other resources.
4. Administration/Management	a.	Operations are conducted in compliance with the 1962 Coop Agreement (subject to amendment) with the City of Seattle which includes prohibition of manufacturing, use of uniform road construction standards, and compliance with sanitary regulations. No overnight camping is allowed (applies only to Industrial Operations) Industrial operations must provide chemical toilets.
	b.	Prescribed slash burning is discouraged to protect residual seedlings, soil water and air quality
	c.	Roads will not be constructed across S-8 classified soils, and timber harvest will not be done on S-8 or S-8 lands.
5. Soil Resource Monitoring	a.	Timber harvest activities will result in no more than 10 percent of the project area having mineral soils exposed within the riparian zone, or 15 percent outside the riparian zone.

G. Minerals and Geology	a. National Forest lands were withdrawn from locatable mineral and mineral leasing activities (which includes minerals, oil and gas, and geothermal) by Public Law 97-350. 96 Stat 1661 dated October 18, 1982. Extraction of common variety rock for road development needs is acceptable where water quality is not degraded.
H. Rural Community and Human Resources	a. Meet Forest-wide Standards and Guidelines.
J. Lands	
1. Special Use Management	a Approval will be recommended for only those special use authorizations compatible with over all management goals and direction for this area.
2. Rights-of-Way Grants	a. Rights-of-Way and easements will be given or obtained as outlined in the 1962 Cooperative Agreement.
3. Land Ownership Planning	a. Maintain the options of maintaining National Forest land ownership in the watershed and the option of disposal of lands and/or timber to the City of Seattle. National Forest lands within the watershed fall into land classification Group V, more intensive study and planning necessary before landownership decisions are made.
	b. Retain right-of-way on Pacific Crest National Scenic Trail.
L. Facilities	
1. Transportation System Planning	a. Road locations are jointly planned and reviewed in accordance with the 1962 Coop Agreement in order to minimize the miles of road constructed.
2. Road Construction and Reconstruction	a. Road construction standards are used as jointly agreed, in accordance with the 1962 Coop Agreement.
3. Road Operation	a. Road maintenance operations, schedules, and standards are agreed to annually through cooperative meetings between Forest Service, municipal owner, and private owners.
	b. Road maintenance is financed through cooperative maintenance agreements under Forest service timber sale contracts, cost-share agreements, and haul permit charges.
	c. Locked gates and gate watchmen services at main entries are provided to control access by road.

P. Protection

1. Fire Management Planning

a. All operations are subjected to fire regulations mutually developed by the City of Seattle and the Forest Service as provided by the 1962 Coop Agreement.

b. Suppress all fires utilizing suppression strategies and resources compatible with fire intensity conditions and values.

c. Prescribed fire has limited application. Maintenance of vegetative cover is important to meeting resource objectives. Some burning of piled debris may be done.

d. Avoid the use of ground disturbing equipment within 100 feet of water courses. Avoid the use of retardant within 200 feet of water courses. Firelines should be located away from streams, maintaining at least 50 feet between the stream course and fire lines if possible.

e. Natural fuels shall normally be left in place for soil stability. Activity fuels shall normally be treated by utilization.

2. Forest Pest Management

a. Integrated pest management permitted except where use of pesticides conflicts with water quality objectives.

21 GREEN RIVER MUNICIPAL WATERSHED (CITY OF TACOMA)

Goal: Provide for the production of water at a level of quality which, with adequate treatment by the purveyor, will result in a satisfactory and safe water supply. Timber production is emphasized to the extent that the water quality goal is met. There is varying emphasis on other uses.

Description of Lends Where Prescription Applicable: This prescription is applied to the approximately 36.000 acres of National Forest land within the Green River Watershed. Such lands are located in an intermingled pattern in the eastern part of the Green River drainage. About 9,000 acres of National Forest Land are currently being considered under the existing Memorandum of Understanding for land exchange.

Intensities in this Management Prescription:

21A Current Direction: Timber Harvest and Dispersed Recreation Permitted.

Desired Future Condition: Complete land exchanges as described in the 1984 joint Memorandum of Understanding with the City of Tacoma. As exchanges are completed, relinquish public use rights on those roads no longer needed to access National Forest land. All other use rights may be retained as needed.

Timber production with dispersed recreation in a primarily roaded modified setting will be emphasized. Special constraints will help protect water quality. Emphasis on public firewood cutting will be continued. Forest Service roads with public use rights, which provide access to National Forest lands, will remain open for dispersed recreation including deer and elk hunting

Program Element	Standards and Guidelines
A. Recreation	
1. Visual Quality	a. Manage to a maximum modification visual quality standard except in areas seen from the Pacific crest National Scenic Trail where the standard will be foreground retention.
2. American Indian Religious and Cultural Use	a. Meet Forest-wide Standards and Guidelines.
3. Facility Construction. Reconstruction	a No developed recreation sites exist. Construct no new sites unless it is concluded after consultation with the City of Tacoma and the Washington State Department of Social and Health Services that such facilities can be installed and utilized while safeguarding water quality.
4. Use Administration	a Emphasize dispersed recreation. Overnight camping will be allowed.
	b. Discourage camping perennial streams spurs to campsites where necessary to within 200 feet of perennial streams. Physically block access within 200 feet of streams discourage use.
	c. Discourage issuance of Recreation Special Use Permits such as concerts, religious gatherings, group parties or recreation vehicle clubs.

B. Wilderness		a. Not applicable
C. Wildlife and Fish		
	1. Planning	a. Meet Forest-wide Standards and Guidelines.
		b. Cooperate with the Washington State Department of Fisheries and Department of Wildlife in restoration and enhancement of fisheries habitat and the stocking of resident and anadromous fish within the area.
		c. Habitat improvements are encouraged.
D. Range		a. Not applicable.
E. Timber		
	1. Timber Management Planning	a. Program Element E from Timber Management Prescription 17, Investment Levels A through O are available. Silvicultural prescription and economic analysis at the time an activity is planned shall determine the appropriate investment level.
F. Water, Soil, and Air		
	1. Soil Resource Inventory	a. Continue to update, monitor, end record S-8 classified soils. Maintain inventory of areas in TRI/GIS system.
	2. Planning	a. Use soil information when locating roads and harvest units.
	3. Improvement	a. Emphasize maintenance and improvement of water quality over other resources. Bank stabilization end erosion control is encouraged to reduce turbidity, bedload and sedimentation.
	4. Administration/Management	a. Industrial operations must provide a means of disposing of human wastes and litter and restoration of the site upon removal of overnight facilities.
		b. Cooperate with the Washington State Department of Social and Health Services and the City of Tacoma in providing data that would be helpful in the study of the watershed and water quality.
		c. Prescribed slash burning is discouraged to protect residual seedlings, soil, water and air quality.
		d. Roads will not be constructed across S-8 classified soils and timber harvest will not be done on S-8 or J-8 lands.
		e. Timber harvest activities will result in no more than 10 percent of the project area having mineral soils exposed within the riparian zone, or 15 percent outside the riparian zone.

		f. Meet at least annually with the City of Tacoma to review work plans, anticipated contractor or permittee work within the drainage. Informational or educational materials referencing activities within the drainage and other issues of mutual interest.
G. Minerals and Geology		a. National Forest lends were withdrawn from locatable mineral and mineral leasing activities (which includes minerals, oil and gas, and geothermal) by Public Law 97-350. 96 Stat 1661 dated October 18. 1982. Extraction of common variety rock for road development needs is acceptable where water quality is not degraded.
H. Rural Community and Human Resources		a. Meet Forest-wide Standards and Guidelines.
J. Lands		
	1. Special Use Management	a. Approval will be recommended only for those special uses compatible with overall management goals and direction for this area.
	2. Land Ownership Planning	a. Applicable details are found in the Memorandum of Understanding between the Forest Service and the City of Tacoma dated August 29. 1984. F.S. control #84-06-58—5.
		b. National Forest lands are in Group III and IV. (Group III - available for land exchange and Group IV — available for disposal through land exchange).
L. Facilities		
	1. Transportation System Planning	a. Meet Forest-wide Standards and Guidelines.
	2. Road construction and Reconstruction	a. Perform and administer road construction/ reconstruction activities to stay within the water quality goal for this area.
	3. Road Operation	a. Road maintenance is financed through cooperative maintenance agreements under Forest Service timber sale contracts, cost share agreements, haul permit charges and appropriated funding.
		b Refer to Forest Service-Corps of Engineers joint Memorandum of Understanding No. DA(S) 45-108-CIVENG-60-10 which describes administration and maintenance agreements on Road 54 from the west watershed entry to the end of the Corps of Engineers' ownership.

P. Protection

1.	Fire Management Planning	a. Forest-wide Fire Protection Group H applies
2.	Forest Pest Management	a. Integrated pest management is permitted except where the use of pesticides conflicts with water quality objectives.

22 SULTAN RIVER MUNICIPAL WATERSHED (CITY OF EVERETT)

Goal: Provide water at a level of quality and quantity which, with treatment by the purveyor, will result in satisfactory and safe water supply. There is emphasis on providing for other uses.

Description of Lands Where prescription Applicable: This prescription is applied to approximately 16,800 acres of National Forest land within the Sultan River watershed. It excludes the private and municipal ownership in the watershed.

Intensities in this Management Prescription:

22B: Current Situation Restricted watershed, recreation use only in developed sites. Provide for timber production, protect watershed values beyond legal requirements, maintain fish and wildlife. The watershed will be managed under the 1963 Memorandum of Understanding between the Forest Service, the City of Everett, and the Snohomish County Public Utility District.

Desired Future Condition: The National Forest land will be owned and managed by another party either private, State or municipal. The Forest service will relinquish all rights except those necessary for the Federal Power Withdrawal (FERC Project No. 2151). While still in the National Forest system, lands will be managed for developed recreation use, timber production, protection of watershed values, and maintenance of fish and wildlife habitat. Emphasis is on maintaining current high quality water production, and for producing moderate levels of fish/wildlife habitat, recreation, and timber outputs.

Program Element	Standards and Guidelines
A. Recreation	
1. Recreation Planning	a. Developed sites permitted. Planning limited to developed sites for picnicking, camping, boating and lake fishing. Water contact sport (swimming) prohibited. Dispersed use (ORV, hunting, driving for pleasure, hiking, etc.) is discouraged, but not prohibited.
2. Visual Quality	a. Meet Forest-wide Standards and Guidelines.
3. American Indian Religious and Cultural Use	a. Meet Forest-wide Standards and Guidelines.
4. Facility and Site Reconstruction, Construction and Management	a. Site development (boat access, picnic, camping and interpretative sites) along Spade Lake is emphasized. Access to the lake should be distributed to allow access to the entire lake. b. Interpretation of the hydroelectric projects are permitted c. Gas-powered boats are not permitted on the lake. d. The applicable Standards and Guidelines for Developed Recreation are found in Management Prescription 3A, program element A.

5. Trail Planning	a.	Trails to access the lake and around the lake permitted to manage user developed travelways. Sanitation facilities provided at the lake and the trailhead when on National Forest land.
B. Wilderness	a.	Not applicable.
C. Wildlife and Fish		
1. Planning	a.	Emphasis is on maintaining 20% of the National Forest commercial timber land in “old growth”.
	b.	Maintain resident fisheries. Maintenance could involve some habitat improvement in the riparian area.
D. Range	a.	Not applicable.
E. Timber		
1. Timber Management Planning	a.	The Standards and Guidelines for the Timber Management, MA 17, intensities C and D, program element E, shall apply to this management prescription.
F. Water, Soil, and Air		
1. Improvement	a.	Meet Forest-wide Standards and Guidelines. Emphasize maintenance end improvement of water quality. Bank stabilization and erosion control is encouraged to reduce turbidity, bed load and sedimentation.
G. Minerals and Geology	a.	Meet Forest-wide Standards and Guidelines.
H. Rural Community and Human Resources	a.	Meet Forest-wide Standards and Guidelines.
J. Lands		
1. Special Use Management	a.	Administer special use permit for FERC license.
2. Right-of-Way Grants	a.	Meet Forest-wide Standards and Guidelines.
3. Land Ownership Planning	a.	Group IV — available for disposal through land exchange.
L. Facilities	a.	Meet Forest-wide Standards and Guidelines. Roads accessing developed sites maintained for public use. All other roads maintained as per the Forest Service-Department of Natural Resources Agreement for the Sultan Basin.
P. Protection		
1. Fire Management Planning	a.	Forest-wide Fire Protection Group E (2) applies.
2. Forest Pest Management	a.	Integrated pest management permitted except where the use of pesticides conflict with water quality objectives.

23 OTHER MUNICIPAL WATERSHEDS

Goal: Provide water at a level of quality and quantity which, with treatment by the purveyor, will result in satisfactory end safe water supply with varying emphasis on timber production, recreation, and other uses.

Description of Lands Where Prescription Applicable: This prescription is applied to the small municipal watersheds of the Forest not covered in Management Prescriptions 20, 21, and 22. Watersheds are found throughout the Forest and at varying elevations. Most are forested old growth, second growth, and plantations — and access is generally by road.

Desired Future Condition: Common to all Intensities.

A varying mix of timber, recreation, wildlife, and other resource use will occur but the primary emphasis will be to meet the above stated goal for a municipal watershed.

Intensities in this Management Prescription:

23A: Timber Harvest, Moderate Recreation Opportunities.

Program Element		Standards and Guidelines	
A.	Recreation		
	1. Recreation Planning	a.	Recreation opportunities in SPNM, SPM, RN, and RM may occur.
		b.	Day use shall be permitted. Overnight use may occur at designated sites.
		c.	The applicable Standards and Guidelines for Developed Recreation are found in management prescription 3A, program element A.
	2. Visual Quality	a.	Meet a Visual Quality objective of foreground retention and middleground partial retention in primary viewsheds. Meet a VQO of Partial Retention in secondary viewsheds foreground and modification in secondary viewsheds middleground.
	3. American Indian Religious and cultural Use	a.	Meet Forest-wide Standards and Guidelines.
	4. Recreation Use Administration	a.	ORV use may be controlled by closures on certain travelways.
	5. Trail construction, Reconstruction, and Maintenance	a.	Trail development may occur and will be located and constructed to minimize adverse effects on water quality.
B.	Wilderness	a.	Not applicable.
C.	Wildlife and Fish	a.	Meet Forest-wide Standards and Guidelines.
D.	Range	a.	Not applicable.

E. Timber		
1. Timber Management Planning	a.	The Standards and Guidelines for the Timber Management prescription Intensity 175, program element 5, shall apply to this management prescription.
F. Water, Soil, and Air		
1. Planning	a.	Meet Forest-wide Standards and Guidelines.
2. Improvement	a.	Watershed improvement and maintenance activities are permitted. Use vegetative restoration methods to restore live root mat and reduce risk of slope failure.
3. Soil Resource Monitoring	a.	Meet Forest-wide Standards and Guidelines
	b.	Ground-disturbing activities will result in no more than 15 percent mineral soil exposed within the project area after the first year. excluding roads.
G. Minerals and Geology	a.	Additional mitigation and rehabilitation measures nay be required to protect water quality. These measures will be determined through NEPA analysis.
H. Rural community and Human Resources	a.	Meet Forest-wide Standards and Guidelines.
J. Lands		
1. Special Use Management	a.	Permit special use compatible with this intensity.
2. Rights-of-way Grants	a.	Meet Forest-wide Standards and Guidelines.
3. FERC License and Permits	a.	Activity to be reviewed through NHPA analysis to determine its effect on water quality. Only permitted if water quality and minimum flows are maintained.
4. Land Ownership Planning	a.	Acquire and/or dispose of land as needed. Lands are in Group III.
L. Facilities		
1. Transportation System Planning	a.	Roads must be located to meet water quality objectives.
2. Road Construction and Reconstruction	a.	Only those construction/reconstruction practices that meet water quality objectives will he allowed. Water quality and/or fish habitat problems caused by construction should be given a high priority for corrective action.
	b.	Road cut-and-fill slopes that may adversely effect water quality will be protected with erosion and/or sediment control Final stabilization practices should include vegetation as well as structures.
3. Road Operation	a.	See Item L-2a above. Apply for maintenance.
	b.	See Item L-2b above. Apply for maintenance

c. All roads not receiving annual maintenance should have measures to control road surface and ditch water.

d. Temporary structures installed to impound water for road maintenance will be removed upon completion of use.

P. Protection

1. Fire Management Planning

a. Forest-wide Fire Protection Group A applies.

b. Temporary structures installed to impound pumper chance water sources will be removed immediately upon completion of use.

c. Rehabilitation needs should be evaluated for all sizes of fires.

2. Treatment of Activity Fuels

a. No more then 20t of the activity area may be exposed to mineral soil and at least 20% of the streams surface within the area should be shaded.

3. Forest Pest Management

a. Integrated pest management is permitted except where use of pesticides conflicts with water quality objectives.

25 SPECIAL USES

Goal: Provide and manage for effective end economical transmission facilities with least impact on the natural resources involved.

Description of Lands Where Prescription Applicable: The prescription applies to existing and potential sites and corridors for such purposes as communication, signal relay, other electronic sites, canals, penstocks, pipelines, and power transmission lines. It includes the land directly under and adjacent to the corridor (clearing limits). Compatible facilities are combined within the same corridor when possible.

Desired Future Condition: Common to all Intensities.

Signs of human activities are dominant. Buildings, antennas, pipelines, high voltage powerlines, and similar structures will be visible. There are few, if any, large trees at sites or in the corridors: ground cover is in small conifers, shrubs and forbs. Vegetation partially screens smaller sites from distant view and provides edge habitat for wildlife. Recreational opportunities may be available for operating off-road vehicles, viewing distant scenery, gathering miscellaneous Forest products, and hunting.

Intensities in this Management Prescription

25A: Utility Corridors
25B: Electronic Sites

INTENSITY 25A Utility corridors

Program Element	Standards and Guidelines
A. Recreation	a. Meet Forest-wide Standards and Guidelines.
1. Visual Quality	a. Meet a Visual Quality Objective of foreground retention and middleground partial retention in primary viewsheds. Meet a VQO of partial Retention in secondary viewsheds foreground and modification in secondary viewsheds middleground.
2. American Indian Religious and Cultural Use	a. Meet Forest-wide Standards and Guidelines.
B. Wilderness	a. Not applicable.
C. Wildlife and Fish	a. Meet Forest-wide Standards and Guidelines.
D. Range	a. Not applicable.
E. Timber	
1. Timber Management Planning	a. No scheduled timber harvest activities. Commercial products, e.g. Christmas trees, may be grown within a utility corridor as long as the prescriptions contained in the corridor management plan are met.
	b. Vegetation maintenance salvage activities will be encouraged for safety purposes.
	c. Brush control within corridors shall be accomplished by manual or mechanical methods unless specific approval is obtained for the use of herbicides.

F. Water, Soil, and Air	a.	Meet Forest-wide Standards and Guidelines.
G. Minerals and Geology	a.	Operating plans must include appropriate measures for protecting the existing facilities.
H. Rural Community and Human Resources	a.	Meet Forest-wide standards and Guidelines.
J. Lands		
1. Special Use Management	a.	Other linear rights-of-way within the corridors will be encouraged Special use permits for uses other than the preceding will be discouraged.
2. Rights-of-Way Grants	a.	Meet Forest-wide Standards and Guidelines.
3. FERC License and Permits	a.	New development will be encouraged within existing utility corridors when activities are compatible.
4. Land Ownership Planning	a.	Group III – Retain, Acquire, or Dispose.
L. Facilities	a.	Meet Forest-wide Standards and Guidelines.
P. Protection		
1. Fire Management Planning	a.	Forest-wide Fire Protection Group A applies.
2. Forest Pest Management	a.	Meet Forest-wide Standards and Guidelines.

INTENSITY 25B: Electronic Sites

Program Element		Standards and Guidelines
A. Recreation		
1. Recreation Planning	a.	Recreation use is not encouraged.
2. Visual Quality	a.	Meet Forest-wide Standards and Guidelines.
3. American Indian Religious and Cultural Use	a.	Meet Forest-wide Standards and Guidelines.
4. Trail Planning	a.	Discourage new public access trail development
	b.	No active maintenance of public access trails that may exist in the area.
B. Wilderness	a.	Not applicable.
C. Wildlife and Fish		
1. Planning	a.	Meet Forest-wide Standards and Guidelines for threatened and endangered species. Habitat improvement projects may be implemented if compatible with electronic site uses.

D. Range		a. Not applicable
E. Timber		
	1. Timber Management Planning	a. No scheduled timber harvest activities.
		b. Vegetation maintenance salvage activities compatible With site-specific plans will be encouraged for safety purposes.
F. Water, Soil, and Air		a. Meet Forest-wide Standards and Guidelines.
G. Minerals and Geology		a. Operating plans must include appropriate measures for protecting the existing facilities.
H. Rural Community and Human Resources		a. Meet Forest-wide Standards and Guidelines.
J. Lands		
	1. Special Use Management	a. Administration shall meet FS Policy direction other types of special uses will be discouraged.
	2. Rights-of-way Grants	a. Meet Forest-wide Standards and Guidelines.
	3. Land Ownership Planning	a. Group III – Retain, Acquire, or Dispose
L. Facilities		a. Meet Forest-wide Standards and Guidelines.
P. Protection		
	1 .Fire Management Planning	a. Forest-wide Fire Protection Group A applies.
	2. Forest Pest Management	a. Meet Forest-wide Standards and Guidelines.

26 ADMINISTRATIVE SITES

Goal: Provide appropriate sites and facilities to administer the Mt Baker-Snoqualmie National Forest.

Description of Lands Where Prescription Application: This strategy is applied to ranger stations, public service centers, engineering zone compounds, road maintenance compounds, seed orchard sites, seed production sites, scale stations guard stations, and lookouts where permanent facilities and utility systems are constructed in order to administer National Forest.

Desired Future Condition: Appropriately located and adequately sized administrative sites with well maintained, legal and functional offices, warehouses, residences, quarters, and utility systems older buildings will be renovated or replaced to maintain their functionality as they age. Improvements will be thoughtfully integrated into the already existing facilities to form a consistent whole. Administrative sites no longer needed may be declared excess or placed under permit if that represents the best use of those real property improvements.

Intensities in this Management prescription: None

Program Element		Standards and Guidelines	
A	Recreation	a.	Provide recreation information, displays, brochures, and services at appropriate major administrative sites.
1.	Visual Quality	a.	No active visual management Visual Quality Level of site-specific plans will be met.
2.	American Indian Religious and Cultural Use	a.	Meet Forest-wide Standards and Guidelines.
3.	Archaeological and Historic Properties	a.	Meet Forest-wide Standards and Guidelines.
		b.	Follow provisions of current Programmatic MOA for Management of Depression-Era Structures.
B.	Wilderness	a.	Not applicable.
C.	Wildlife and Fish	a.	Improvement projects may be implemented when they are compatible with other administrative site uses.
D.	Range	a.	Not applicable.
E.	Timber		
1.	Timber Management Planning	a.	Hazard tree removal, and salvage sales are permitted to properly maintain facilities and meet safety requirements. Timber stand improvement is the primary goal at seed tree orchards and seed production areas.
2.	Genetic Forest Tree Improvement	a.	Some forest lands are allocated to the culture of genetically improved seed. The ‘Tree Improvement Plan - Mt. Baker-Snoqualmie National Forest, 1982-1992” is the primary source of information and guidelines on the genetic tree improvement program.

	3.	Seed Production Areas	a. At present, there are only 2 seed production areas located on the Forest. These are the Sun Top and Mule Creek noble fir seed production areas on the White River Ranger District. These sites will be managed as interim sources of seed until such time as seed is available from the McCullough Seed Orchard. Additional information is contained in the “Tree Improvement Plan,” previously referenced.
			b. Any additional seed production areas must he recommended by the Forest Geneticist.
	4.	Seed Orchards	a. The Derrington and McCullough Seed Orchards are established to ultimately produce genetically improved seed for the production of seedlings to be used in reforesting deforested National Forest lands. The “Tree Improvement Plan” - previously referenced, is the primary guide for the management of these sites. Additional guidance will be provided by the Forest Geneticist.
F.		Water, Soil, and Air	a. Meet Forest-wide Standards and Guidelines.
G.		Minerals and Geology	a. Not applicable.
H.		Rural community and Human Resources	a. Meet Forest-wide Standards end Guidelines.
J.		Land Ownership Planning	a. Group III. Retain, Acquire, or Dispose.
L.		Facilities	a. Meet Forest-wide Standards and Guidelines.
P.		Protection	a. Forest-wide Fire Protection Group A applies.

27 ALPINE LAKES MANAGEMENT AREA

Goal: Manage Alpine Lakes Wilderness and management area in accordance with the Record of Decision, Selected Alternative. Alpine Lakes Area Land Management Plan Final Environmental Impact Statement, November 2, 1981.

Description of Lends Where Prescription Applicable: This prescription is applied to the Alpine Lakes Wilderness and Management Area.

Desired Future Condition: Refer to Alpine Lakes Area Land Management Plan and FEIS.

Intensities in this Management prescription:

D Developed Site (as per Alpine Lakes Area Management Plan)

DR Dispersed Recreation (as per Alpine Lakes Area Management Plan)

GF General Forest (as per Alpine Lakes Area Management Plan)

SA Special Area (as per Alpine Lakes Area Management Plan)

SF Scenic Forest (as per Alpine Lakes Area Management Plan

Management Direction as included in the Alpine Lakes Area Management Plan. Final Environmental Impact Statement and Record of Decision November 2, 1981.

As provided for in the Alpine Lakes Area Management Plan, Management in the following areas will be as stipulated in the following Management Prescriptions:

5— Potential Wild and Scenic River
11— Old Growth Habitat
12— Mature and Old Growth Wildlife Habitat
14— Deer and Elk and winter Range
15— Mountain Goat Habitat
16— Threatened and Endangered Species

Brief descriptions:

D Developed Site: Areas are substantially modified for campgrounds, boating, ski areas, summer home tracts, administrative sites, etc. Sights and sounds of people are evident; concentration of users is often high. Roads, trails, and parking are managed to provide access to the site, with emphasis on nonmotorized activity on the site. No scheduled timber harvest. Vegetative manipulation only for the enhancement or protection of the area.

DR Dispersed Recreation: Managed primarily in an unroaded condition with emphasis on dispersed recreation, scenic, wildlife or other amenity values. No new roads construction. ORV used permitted, depending on the ROS class. No scheduled timber harvest. The only exception is salvage harvest of catastrophic forest lose for the purpose of limiting damage on adjacent lends. Visual Quality Objective is Retention and Partial Retention, concentration of recreation users is low; relatively minimal contact with other users. If no alternative road access available for intermingled lands, access say be granted for a non-public minimum standard road.

GF General Forest: Timber harvest occurs, with a full range of silvicultural prescriptions used on suitable lands. The visual quality objective ranges from Retention to Modification. Dispersed recreation sites are common: encounters between recreationists say be numerous. Motorized activities are common. Rustic facilities may be provided. Land in this allocation is generally accessible by road. Road and trail standards range from optimum, for high-volume mixed traffic, to closed after project completion.

SA Special Area: Areas protected for their uniqueness and natural conditions, and, where appropriate, to foster public use, enjoyment, or study. Each Special Area has a specific management direction. Refer to FEIS, Alpine Lakes, 1981. No scheduled timber harvest. Roads, facilities (such as parking, picnic areas, and interpretive sites, etc.) will enhance and protect the area. Other resource manipulation, including removal of trees, will occur only for the enhancement or protection of the area.

SF Scenic Forest: The objective is to retain or enhance viewing and recreation experiences. Developments and use in the seen area from recreation sites, roads, and trails within Scenic Forest will meet visual quality objectives. Use will be integrated with the natural landscape. Timber harvest permitted; a full range of silvicultural prescriptions will be used to meet the visual and recreational objectives.